

Jefferson Community College
2005-2006 Catalog

Better education...



Better life.



JEFFERSON COMMUNITY COLLEGE

4000 SUNSET BOULEVARD STEUBENVILLE, OHIO 43952 (740) 264-5591 OR 1-800-68-COLLEGE

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THE CATALOG PURPOSE

While this catalog is intended to be a fair summary of certain matters of interest to students, its readers should be aware (1) that this catalog is not intended to be a complete statement of all procedures, policies, rules, and regulations by which the college is operated, (2) that the college reserves the right to change without notice any academic or other requirements, course offerings, course contents, which may be contained in this catalog, and (3) that departmental procedures, policies, rules, and regulations, whether or not contained in this catalog, may be applicable to students in those departments. All policies, procedures, rules, and regulations mentioned herein are available for public inspection. ALL STATEMENTS IN THIS PUBLICATION ARE NOT TO BE REGARDED AS OFFERS TO CONTRACT.

A student is responsible for meeting all requirements for graduation. A student's advisor may assist in planning programs, but the final responsibility for meeting graduation requirements rests with each student. In addition, students planning to transfer to another institution have the sole responsibility to determine that their course of study at the college will qualify for such transfer.

Jefferson Community College does not discriminate on the basis of race, color, religion, sex, national origin, age, ancestry, or nonperformance related

disabilities in the admission of students, employment of individuals, or in activities conducted by the college.

Jefferson Community College is an equal opportunity institution.

Student complaints/appeals about the application or misapplication of any policy or procedure contained in this catalog, including equal opportunity and sexual harassment, should be processed according to the procedures found in this catalog and/or contained in a separate student handbook provided in some programs.

Complainants are advised that, where practical, an attempt to resolve problems and concerns informally prior to submission of a formal appeal is recommended or required.

Sexual Harassment Policy

In accordance with Equal Employment Opportunity Commission (EEOC) guidelines and Title VII of the Civil Rights Act of 1964, conduct creating an intimidating, hostile, or offensive working environment will not be tolerated. It is the policy of the college that sexual harassment or other offensive behavior as defined by the EEOC, will not be tolerated at any time while on college property by employees, vendors, students, or the Board of Trustees.

GENERAL INFORMATION

HISTORY

On October 29, 1965, the Battelle Memorial Institute of Columbus, Ohio, completed a survey financed jointly by the Jefferson County commissioners and the Steubenville Area Development Council to determine area needs for training and education. The Battelle findings indicated a definite need for post-high school technical education, prompting the creation of the Jefferson County Technical Institute District. The institute was chartered for operation on September 16, 1966, as a public two-year institute by the Ohio Board of Regents, and a Board of Trustees was appointed in compliance with Chapter 3357 of the Ohio Revised Code. Area acceptance and support for the technical institute was confirmed in fall 1966, when Jefferson County voters approved a one mill, 10-year levy to assist in the support of the facility.

An 84.7-acre tract of land in the northwest section of Steubenville, Ohio, was obtained by the trustees and construction of the building began in October 1967. Less than one year later, on September 23, 1968, the doors opened to admit the initial class of 320 students. Phase II of the campus building program, providing a second floor on the library, a nursing skills laboratory, student lounges, classrooms, and expanded parking lots, was completed in early 1972. In 1976, Phase III construction doubled the space in the lecture hall, increasing the capacity to over 300 students.

In 1976 and 1986, Jefferson County voters approved 10-year renewals of the one mill levy. The Ohio Board of Regents approved a name change for the institute to Jefferson Technical College in 1977.

In fall 1978, Phase IV was completed, providing three outdoor tennis courts and two outdoor basketball courts.

Phase V was completed in winter 1983. The health wing addition and room renovation provided the college with three new labs, two classrooms, and six faculty offices. The computer center was remodeled to accommodate a new

computer. In addition, space was converted to the individualized industrial engineering lab.

Phase VI was completed in early 1989 and includes three computer labs, a business/industry conference room and computer services facilities.

Phase VII was completed in fall 1993 with renovations to existing offices, construction of new offices and workspace, and the conversion of a large open court area into a fully enclosed year-round student lounge.

In 1992, the Board of Trustees empowered a citizens committee to study the idea of converting the college to a community college. The committee proposed the change in June 1993. In October 1993, the Ohio attorney general determined that the college could transfer the local levy to a community college operation. In September 1994, the Ohio Board of Regents approved a request from Jefferson Technical College to expand its charter from technical to community college. In February 1995, the Ohio Board of Regents approved a five-year operation plan and the North Central Association approved the change in the Colleges Statement of Affiliation status to include the Associate of Arts and Associate of Science degrees. On July 1, 1995, Jefferson Community College began officially serving the public.

In March 1996, Jefferson County residents voted to replace the one mill technical college levy with a one mill levy to operate the community college for 10 years.

Phase VIII was completed in August 1996. In addition to repairing the first floor of the health wing, a second floor was added. This floor contains one classroom, four labs, and nine faculty offices.

In 2004, JCC acquired a vacated business structure adjacent to the main campus. Following renovation of the first floor, the Department of Workforce and Community Outreach moved into the the

training center in 2005. The department offers training classes in two computer labs and four classrooms. In addition to office space, there are a kitchenette and work areas.

Since 1968, 33,564 different students have enrolled in one or more classes for credit applicable to a higher education degree or certificate.

MISSION

Jefferson Community College is an institution that is student-centered, community-connected, future-focused.

The mission of Jefferson Community College is to provide a center of learning that enriches lives, connects with students, promotes diversity, builds community, and educates for tomorrow through **career, transfer, workforce, and community education programs.**

The college accomplishes this mission by offering each student the following opportunities which collectively provide enrichment, diversity, community experience, and a focus on the future through teaching excellence, community partnerships, life-long learning programs, and community outreach.

1. Career-oriented programs at the pre-baccalaureate degree level are the applied associate degrees and certificate-level technical education and training programs offered in business, engineering, health, education, and public service technologies.

2. Pre-baccalaureate transfer-oriented programs and courses lead to Associate of Arts Degrees that align with a variety of majors, an Associate of Science Degree, and the completion of the Ohio Transfer Module (OTM) and/or the Transfer Assurance Guides (TAGS). Both the Ohio Transfer Module and the courses listed in the Transfer Assurance Guides for various majors are or will be mandated transfer to all Ohio public institutions of higher learning.

3. Workforce programs provide contracted or open enrollment credit/non-credit training that fall outside the traditional college calendar for the emerging, incumbent, and/or transitional workforce. These programs respond to today's global marketplace, rapidly changing job markets, and new technologies in which individuals are required to have broad-based, transferable skills. These programs provide opportunities for the upgrading, retraining, and continuing education of individuals possessing the associate degree, certificate-level technical skills, and/or other externally obtained degrees or knowledge based on general education studies and other life experiences.

4. Community-oriented programs meet the personal enrichment needs of the community and service area residents, and are offered through a number of credit and noncredit courses. The courses are often designed specifically to meet requests made by the constituents of the service area, advisory committees, and/or the surveyed community as a whole.

CORE VALUES AND GUIDING PRINCIPLES

In carrying out its mission, Jefferson Community College will manifest the following core values:

- Affordable and Accessible Programs and Services
- Teaching and Learning Excellence
- Quality Service
- Openness to Change and Innovation
- Respect for Diversity
- Ethical and Accountable Behavior
- Friendly Atmosphere and Promotion of Healthy Lifestyles

The strategic planning of Jefferson Community College will be guided by the following principles:

- Expand educational and training opportunities by responding to the needs of the surrounding communities
- Create an accessible and nurturing environment that promotes wellness and learning
- Effectively manage available resources to provide successful community service now and into the future
- Assure diversity in academic curriculum and in hiring practices
- Continuously improve the quality of student learning and support services.

ACCREDITATION & MEMBERSHIPS

Jefferson Community College is accredited by the Commission on Institutions of Higher Learning of the North Central Association of Colleges and Schools (NCA), 30 N. LaSalle St., Suite 2400, Chicago, IL, 800-621-7440.

Jefferson County Technical Institute was initially accredited during the NCA's annual meeting on March 25, 1973. The college was reaccredited in 1976, 1981, and 1989. The college underwent a focused visit by NCA in 1994. In February 1995, the college received approval to change its College Statement of Affiliation status to become Jefferson Community College and to offer the Associate of Arts and Associate of Science Degrees. The college's student assessment plan also was approved. The college was accredited as a community college in 1997.

The college is a member of the American Association of Collegiate Registrars and Admissions Officers and has been a member of the American Association of Community Colleges since November 1971. Membership is also held in the Ohio Association of Community Colleges.

The college is a full member in the Ohio College Association, which is the association of private and state-assisted institutions of higher learning in Ohio.

Jefferson Community College is approved for veterans' training.

The Dental Assisting Certificate Program is accredited by the Commission on Dental Education, American Dental Association. The Emergency Medical Technician-Intermediate, and EMT-Paramedic courses are approved by the Ohio Department of Public Safety Services Division of EMS; the program number is 5-3-011. The Medical Assisting Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP), on recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE), Commission on Accreditation of Allied Health Education Programs, 35 East Wacker Drive Suite 1970, Chicago, Ill., 60601-2208, phone 312-553-9355. The Clinical Laboratory Technician Program is accredited by the National Accrediting Agency for Clinical Laboratories Sciences (NAACLS) 8410 West Bryn Mawr Ave., Suite 670, Chicago, Ill., 60631, 773-714-8880; the program number is 034084. **JEFFERSON COMMUNITY COLLEGE CATALOG '05-'06**

The School of Practical Nursing is approved by the Ohio Board of Nursing and the Ohio Department of Education, Division of Vocational Education; the program number is 31047. The Radiologic Technology Program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT). The program number is 0274000. The Respiratory Therapy Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Committee on Accreditation for Respiratory Care (COARC); the program number is 200326.

FACILITIES

Jefferson Community College has two distinct facilities. The instructional building currently consists of approximately 160,000 square feet, housing 22 classrooms and 36 laboratories for business, engineering, health, public services, and general studies course work. The central focus of the multi-winged structure is the computer wing. In the computer wing there are three computer labs and a interactive TV classroom. There are two student lounges and faculty and administrative offices. A Preschool and bookstore are located on the lower level.

The college's Department of Workforce and Community Outreach occupies a building adjacent to the main building. The training center contains two computer labs, four classrooms, a kitchenette, office and work areas.

ADMISSIONS

As a public institution of higher education, Jefferson Community College adheres to an "open door" admissions policy. Although the minimum requirement for college admission is a high school diploma, General Educational Development (GED) certificate, or completion of an approved home school program, applicants are not necessarily accepted to any course or program without adequate preparation.

Placement testing and admissions counseling are used by the Admissions Office to guide students to appropriate programs, classes, and career goals.

Details on admissions procedures and the various program requirements are available at the Admissions Office.

CLASS SCHEDULE

Each semester the college publishes the class schedule, which is available through various sources including the web and at the college. The schedule contains course listings; dates and times of registration; exam schedules; the more pertinent guidelines; and other information of interest to the student. The schedule is subject to change.

The college reserves the right to cancel a course when the registration is not sufficient to warrant its continuance, divide a class if enrollment is too large for efficient instruction, change the time of a scheduled course or section, and/or change instructors when necessary.

PRACTICUM EXPERIENCE

Practicum experiences, including clinical education and clinical laboratory, emphasizing observation and practice, have been established to enhance classroom instruction and laboratory practice. This concept is in operation in Business, Computer, and Office Information Technologies; Information and Engineering Technologies; Public Service programs such as education; and Health Sciences programs. Proof of health insurance may be required. Students participating in the practicum programs usually earn one credit hour for each seven clock hours/week/semester under the close supervision of practicing professionals or college faculty at cooperating agencies' locations.

TRANSFER OPPORTUNITIES

In addition to the Associate of Arts and Associate of Science Degrees, the transfer module, and the transfer assurance guides outlined in the following section, Jefferson Community College has arranged formal and informal transfer/articulation agreements with many public and private colleges and universities. Also, most institutions accept transfer credits from Jefferson Community College. Any new or continuing student interested in transferring should contact the transfer counselor in the HOST Center as soon as possible. Early notification and action is advantageous to the student.

INSTITUTIONAL TRANSFER MODEL: STATE POLICY

The Ohio Board of Regents, at the direction of the Ohio General Assembly, developed a statewide policy to facilitate movement of students and transfer credits from one Ohio public college or university to another. Independent colleges and universities in Ohio may or may not be participating in the transfer policy. Students interested in transferring to an alternate institution are encouraged to check with the college or university of their choice regarding specific transfer agreements. The student should then contact the transfer counselor or a HOST Center advisor at JCC as soon as possible for consultation, advice, and contact information with the baccalaureate institution.

JCC TRANSFER MODULE

The transfer module established by the Ohio Board of Regents Transfer and Articulation Policy Committee consists of a specific subset of Jefferson Community College's general education requirements. Jefferson Community College's transfer module contains 38 semester credit hours of specified course credits in English composition; arts and humanities; social sciences; natural sciences; and mathematics. The Transfer and Articulation Committee of the OBR is also in the process of setting up Transfer Assurance Guides (TAGs), which lists courses in more than 40 majors in seven different areas, i.e. Education, Arts and Humanities, Communication, Business, Health, Science, Technology and Engineering, and Social Science, that will transfer into degree programs in all public institutions in Ohio. These courses consist of anywhere from 36 - 40 credit hours and will be integrated into JCC's Associate of Arts or Associate of Science degrees. The student does not have to complete the Ohio Transfer Module or the Transfer Assurance Guide courses for the courses to transfer. Any course listed as part of the OTM or a TAG will transfer.

The student may be required, however, to meet additional general education requirements which are not included in the JCC transfer module or TAG but which are required at the new institution. Also, TAG courses taken for a particular major may not transfer into a different degree

program if a student changes his or her major at the transferring institution.

RESPONSIBILITIES OF THE STUDENT

Students enrolled at Jefferson Community College will, for the most part, be directed toward degree and/or certificate completion within their selected major. A student anticipating transfer at a later date should plan a course of study that will meet the requirements of a specific degree or certificate program at Jefferson Community College as well as apply to the requirements of a degree program at the gaining institution, to facilitate transfer of maximum credit. Once a student indicates a desire to transfer, the student is highly encouraged to seek further information regarding transfer from the JCC transfer counselor and/or HOST Center advisors as well as from an advisor at the college or university to which the transfer is planned. If possible, a written statement of acceptance of planned Jefferson Community College course work from the gaining institution should be obtained. Information regarding transfer of courses may also be obtained from the state-sponsored Course Applicability System (CAS) accessible on the web at www.transfer.org to both students and advisors.

APPEALS PROCESS FOR TRANSFER MODULE COURSES

A multilevel appeal process is available at Jefferson Community College. This process is described in the section of the catalog titled Appeals Process and is applicable to all transfer module courses coming into Jefferson Community College. A student transferring from Jefferson Community College also has the right to appeal, under the state appeal process in place at the college or university to which they plan to transfer. The state requires that each institution shall make available the appeal process and if the transfer student's appeal is denied by the institution, after all levels have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the executive vice president for academic and student affairs and/or the state articulation and transfer appeals review committee. This committee shall review and recommend to the institution the final resolution of the individual case.

SENIOR CITIZENS

Ohio residents over 60 years of age may enroll for regular credit courses at the college under certain conditions and not be required to pay tuition through the Jefferson Community College Senior Citizen Scholarship Program. The scholarship does not cover lab/materials/technology fees, books, or supplies.

In order to participate in this program, Jefferson County residents should contact the Student Information Center.

EVENING/FLEXIBLY SCHEDULED/ACCELERATED CLASSES

The evening classes offered by the college are an integral part of the majority of programs presented. The instructors, many of whom teach courses during the day, provide a quality experience for the evening students. These classes are organized so individuals from the community may obtain a degree, broaden their personal background, improve their present employment situation, or retrain for new occupational opportunities. Those individuals who desire to attend evening classes must make formal application and are responsible for meeting the matriculation and academic requirements of the college. Courses from the degree programs offered in the evening are scheduled on a rotating basis. Offices and personnel for assistance and the college bookstore are open on specific evenings for the evening students' benefit. In addition, the college serves the community by offering courses to various groups when a need and interest are indicated. Announcement of evening courses, together with class schedules, fees, and other information are included in the class schedule. JCC also offers flexibly scheduled (or flex) classes, including late-start courses, accelerated courses, and one-credit five-week courses to accommodate students with unusual schedules. Listings for the non-traditionally scheduled courses and late-added courses may be found on the JCC web site at www.jcc.edu, in the printed schedule, on fliers, and by calling the HOST Center.

Some associate degrees and certificates may be attained by attending **only** evening classes. Students are advised to consult with a HOST Center advisor about the availability of the programs for evening study.

CREDIT FOR LIFE EXPERIENCE

Jefferson Community College now awards credit for verified learning resulting from prior experience. This credit can be awarded when the learning is college equivalent, possessing value in and of itself and contributing to the personal career development of the learner in the concentration identified in the degree approval. The advisor or faculty member helps the student to identify the learning outcomes of the experience in order to ascertain how well these outcomes match those of a particular course or program at JCC. If it is determined that 70% of the learning outcomes can be directly linked to an existing course, JCC course credit may be granted upon the presentation of a portfolio documenting the work that the student has done. If the learning is not closely allied to an existing course but is significant value and of college level, special topics credit may be granted. The dean, faculty members, and/or advisors of the student will make this decision based on the student's documented evidence of the learning experience. Students will be strongly advised to take the portfolio courses offered at JCC to help them more effectively present their documentation to deans, faculty, and advisors.

A student applying for credit for life experience has several options. The credit awarded may be applied to the student's chosen degree program at JCC, or students may choose to enroll in one of two specialized degree programs for adults with varied experiences and education. The Associate of Technical Study Type B degree awards a degree to a student in a technical major not covered by current programs at JCC. The Associate of Individu-

alized Study degree is a program designed to award a degree to a student in a specialized area not already covered in JCC degree programs or by the Associate of Technical Study Type B degree. (See page 9 in the catalog for a fuller explanation of these degree programs.) Both degrees are awarded for the satisfactory completion of a minimum of 60 semester credit hours in an individually planned program, which may include credits awarded by the college for courses completed or training received by a student at other post-secondary institutions, vocational centers and/or other education enterprises judged by the institution to be of college level and credit given for life experience.

For the application procedure prior to completion of 12 semester credit hours, an application form outlining the area of concentration and designating course areas for further study must be approved and signed by the appropriate dean. The student's individual curriculum must contain the designated minimums for technical studies (when applicable) and the general education courses applicable to that degree program or that designated for the Associate of Individualized Study or Associate of Technical Study (Type B) degree programs.

If approved for an Associate of Technical Study Degree (Type B), Associate of Individualized Study degree, or for any other degree program at JCC, the candidate must complete no less than 18 semester credit hours of course work under the supervision at JCC.

A maximum of 42 credit hours can be recognized by JCC for course work and/or training completed in other public, private, or proprietary post-secondary institutions, vocational centers, and/or schools conducted by business and industry, credit-for-life experience prior to the declaration of candidacy for either the Associate of Individualized Study or the Associate of Technical Study degrees.

ACADEMIC DEGREES

Jefferson Community College grants the Associate of Arts (AA) and Associate of Science (AS) degrees. The *Associate of Arts* (AA) parallels the first two years of a traditional university liberal arts degree. It provides the student seeking transfer to a four-year college or university with the lower-division courses generally required by the four-year institution. It provides an excellent academic background and will permit a student to select a major course of study in the arts or business. The *Associate of Science Degree* (AS) parallels the first two years of a traditional university general professional degree with the first two lower-division year courses preparing the student to be able to select a major in science, business, engineering or technology. In addition to the general AA and AS degrees, the College has developed specialized AA and AS degrees: the *Associate of Arts with English, Communications or Psychology concentrations*; *Associate of Arts: Educational Paraprofessional and Education Transfer*; *Associate of Arts: Business Administration Transfer*; *Associate of Science: Engineering Transfer*; *Associate of Science: Computer Science Transfer*; *Associate of Science: Physical Science Transfer*; and *Associate of Science: Health or Biological Sciences Transfer*. These particular degrees are designed to more closely match those five specialized majors than the general AA or AS. If your baccalaureate interest lies in one of these fields, consult with your advisor, dean, or the transfer counselor for more information.

In addition to the AA and AS degrees, the college also offers the following associate degrees.

The *Associate of Applied Business Degree* (AAB) is a technical degree that prepares the student seeking immediate employment after graduation in the areas of accounting, business, and business-related technologies. The *Associate of Applied Science Degree* (AAS) is a technical degree which prepares the student in a professional area such as Information and Engineering Technology, Health Sciences, Pre-Kindergarten Education, or Criminal Justice.

The *Associate of Technical Study Degree* (ATS) is a technical degree which serves students seeking a specific employment position. A number of ATS programs can be found in the Engineering Technologies section of this catalog. The ATS degree offers, through the Type B Program, the option of using previously acquired education and skills to develop, in conjunction with an advisor, a portfolio granting credit for previous education and/or experience. These programs are described in more detail throughout the catalog.

The college currently offers five degrees with more than two dozen majors. These include the Associate of Arts and Associate of Science degrees; Associate of Applied Science, Associate of Applied Business, and Associate of Technical Study degrees. The number of certification programs exceeds 20. Technology programs are grouped by discipline into Business, Computer, and Office Information Technologies; Information and Engineering Technologies; Health and Biological Sciences; and Humanities and Social Sciences.

The technology degree programs require that approximately one-half of the individual's course work at the college be technical in nature. This work will be organized in such a manner as to present courses which offer preparation for gainful employment following graduation or which may form the basis for continued study. About one-fourth of the individual's course work will be completed in technically related subjects. This work, while related to the individual's technical area, may be readily adaptable to a number of practical life situations and may be used to increase the student's understanding of other technologies. The remaining approximately one-fourth of the student's course work will be composed of general studies courses. These courses attempt to provide additional growth in the student's social awareness, personal communications, critical thinking, problem solving, and, in most cases, computational and computer literacy skills.

Both the AA and AS degree can be ends unto themselves in a general education field or used as stepping stones to a baccalaureate degree at a four-year college or university.

The Associate of Arts Degree is intended for the student planning to complete the first two years of a Bachelor of Arts Degree at Jefferson Community College. The AA degree has special emphasis in the arts, business, social sciences, and humanities, and is for the student seeking two years of general education with the ability to transfer/articulate credits to another institution.

The Associate of Science Degree is intended for the student planning to complete the first two years of a Bachelor of Science Degree at Jefferson Community College. The AS degree prepares students in general education with special emphasis in the physical/natural/health sciences, mathematics, computer sciences, engineering and business disciplines, and also has the ability to transfer/articulate credits to another institution.

Overviews of each of the college degrees by program are listed in the sequences of study section (see index). The overview explains and expands the sequence of courses and other academic information to include expected learning outcomes. Specific course descriptions are arranged in alphabetical order by course code and number in the course description guide.

The Ohio Board of Regents (OBR) requires a *minimum* of 60 semester hours for an associate degree. Each degree program, major, and certificate offered by JCC has been approved by the OBR as outlined in the catalog. As a result, the student may be required to earn more than the minimum semester credit hours to complete the degree, major or certificate requirements as designed by JCC and approved by the OBR.

ACADEMIC PROGRAMS

Degrees Offered: Associate of Arts (AA)
 Associate of Science (AS)
 Associate of Applied Business (AAB)
 Associate of Applied Science (AAS)
 Associate of Technical Study (ATS)

Programs Offered:

Associate of Arts and Associate of Science Degrees

Associate of Technical Study (Type A & B)

Course of study developed to meet individualized needs of students, employers or the community (ATS)

Business, Computer, and Office Information Technologies Programs

Associate of Arts for Business Administration Transfer (AA)

Accounting Technology

Accounting (AAB)

Business Management Technology

Business Management (AAB)

Business Management (Certificate)

Real Estate Management (AAB with emphasis)

Computer Information Systems Technology

Computer Information Systems (AAB)

Computer Information Systems (Certificate and Certificate+)

Electronic Commerce (AAB)

Approval Pending for these:

Interactive Digital Media Design (Degree)

Interactive Digital Media Design (Certificate)

Marketing and Management (Degree)

Marketing and Management (Certificate)

Web Design and Administration (Degree)

Web Master (Certificate)

Office Information Technology

Executive Office Information (AAB with emphasis)

Legal Office Information (AAB with emphasis)

Medical Machine Transcription (Certificate)

Medical Office/Coding Specialist (AAB)

Medical Office/Coding Specialist (Certificate)

Office/ Assistant (Certificate)

Computer Software (Certificate)

Health and Biological Sciences Programs

Associate of Science for Health or Biological Sciences

Transfer (AS)

Clinical Laboratory Technology

Clinical Laboratory Technician (AAS)

Dental Assisting Technology

Dental Assisting (AAS)

Dental Assisting (Certificate)

Dental Assisting EFDA (Certificate)

Emergency Medical Services

EMT-Intermediate (Certification)

EMT-Paramedic (Certification)

Medical Assisting Technology

Medical Assisting (AAS)

Medical Assisting (Certificate)

Medical Office Management (Certificate)

Phlebotomy (Certificate)

Practical Nursing

Practical Nursing (Certificate)

Radiologic Technology

Radiologic Technology (AAS)

Respiratory Therapy Technology

Respiratory Therapy (AAS)

Humanities and Social Sciences Programs

Criminal Justice Technology

Corrections (AAS)

Law Enforcement (AAS)

Law Enforcement with Police Academy

Education

Educational Paraprofessional (AA)

Prekindergarten Care and Education (AAS)

Prekindergarten Care (Certificate)

Liberal Arts

Communications Concentration (AA)

English Concentration (AA)

Psychology Concentration (AA)

Information and Engineering Technologies Programs

Associate of Science

Computer Science Transfer (AS)

Engineering Transfer (AS)

Physical Sciences Transfer (AS)

Design Engineering Technology

Drafting/Design (AAS)

Electrical/Electronics Engineering Technology

Electrical (AAS)

Electronics (AAS)

CISCO Certified Networking Associate (CCNA) (Certificate)

CISCO Certified Networking Professional (CCNP) (Certificate)

Computer Service - A+ (Certificate)

Programmable Logic Controllers (Certificate)

Information Technology

Information Technology (Type A-ATS)

Computer Software Engineering (Certificate)

Computer Systems Engineering Technology (Type A-ATS)

Microsoft Certified Systems Administrator (MCSA) (Certificate)

Mechanical Engineering Technology

Mechanical (AAS)

Technical Study

Building/Construction Trades Technology (Type B-ATS)

Electro-Mechanical Engineering Technology (Type A-ATS)

Industrial/Manufacturing Trades Technology (Type B-ATS)

Instrumentation and Control Technology (Type A-ATS)

Robotics Technology (Type A-ATS)

Utilities Services Production/Maintenance Trade

Technology (Type B-ATS)

COLLEGEWIDE GENERAL EDUCATION OUTCOMES FOR DEGREE PROGRAMS

The purpose of the collegewide outcomes is to identify the general education learning outcomes for all degree programs and majors.

1. Language Literacy: Has effective oral and written language skills in interpersonal relationships and for presenting a positive image in a professional environment. Can read, listen to, and interpret language in a manner necessary to personal growth and achievement of goals.

2. Mathematical Literacy: Demonstrates both understanding of quantitative concepts and the skill in numerical operations and systems essential to degree level and/or modern life.

3. Information Literacy: Knows how to retrieve and use relevant data from a variety of public and private sources, including degree-specific technology, to achieve personal/professional goals.

4. Computer Literacy: Capable of multitasking on the computer, including using Internet resources and creating documents using spreadsheets and/or word processing programs.

5. Problem-Solving Skills: Demonstrates the necessary critical thinking skills for decision-making, including the ability to analyze, synthesize, make inferences, and evaluate data.

6. Team-Work Skills: Works effectively and productively with others as a valuable member of social and professional groups, which assumes the possession of good self-esteem and work ethic, along with initiative, assertiveness, commitment to quality, and awareness of diversity.

7. Cultural Literacy: Understands the principles underlying human personal and interpersonal behavior. Demonstrates familiarity with those political, historical, scientific, and cultural events, facts, and artifacts that are pertinent to understanding local and national current affairs.

ASSOCIATE OF TECHNICAL STUDY

The Associate of Technical Study Degree (Type A or Type B) is awarded for successful completion of an individually planned technical education program designed to respond to needs for specialized technical education not cur-

rently available in the college's formal degree programs. As with all technical associate degree programs, the program leading to an Associate of Technical Study Degree must have an area of concentration which is the equivalent of 30 semester credit hours in technical studies. This concentration must be clearly identifiable with a career objective. The general studies (approximately 14 credits) and basic technically related (approximately 14 credits) components must also be satisfied. A minimum of 60 semester credit hours is required for all degrees offered by the college.

ASSOCIATE OF TECHNICAL STUDY (TYPE A)

The area of concentration for a Type A degree consists of a coherent combination of technical courses selectively drawn from two or more technical programs currently offered by the college. This combination must serve a career objective which would not be adequately addressed by any single existing college program. A minimum of 16 credits concentrated in a particular technology is required. The technical study degree is usually a course of study developed by the college, the employer or potential employer, and the student to meet specific employment and academic needs.

ASSOCIATE OF TECHNICAL STUDY (TYPE B)

The Type B degree is awarded for successful completion of an individually planned technical education program designed to respond to the needs of a concentrated specialized technology. Some portion of the required level or expertise in this specialization must be currently held by the student. This technical specialization may have been obtained through formal education, apprenticeship, journeyman, other occupational skill training program or unique life experiences. This background **must** be documented as to the nature of the experience, identified learning outcomes of the experience, how the learning outcomes were obtained, how the learning was verified and by whom. It is the student's responsibility to develop a portfolio that specifically: (1) links the learning outcomes of previous learning experiences to an existing Jefferson Community College course for which direct course credit may be granted; or, (2) documents and provides rationale for previous learning to be of significant

value and of an appropriate college level that internship credit or special topic credit, in the amount determined by the reviewing technical study council, may be awarded. The portfolio may result in credits granted for specific courses already offered at the college or in a specific number of credits awarded as a block in the specialized area. Credits awarded for life experience that matches a specific course already offered at JCC also may be applied to the Type A program or the Associate of Individualized Study degree.

In all cases, the basic ATS degree requirements will apply. The block credit awarded for the specialized technology will not exceed 30 technical block credits where one block credit is the equivalent of 15 hours of college-level education, as a minimum. The individual, with the assistance of an advisor, can select from a list of electives provided by faculty advisors and the dean and complete the technical block of study. The remaining nontechnical academic portion of the program will be completed under other degree programs. Final approval of the ATS Type B degree and granting of the ATS degree rests with the department dean.

GENERAL

All Associate of Technical Study programs (Type A and B) are coordinated by the executive vice president for academic and student affairs, the department deans, and faculty. Portfolios are evaluated by the faculty connected to the specialized study program. The student interested in pursuing an ATS Type A degree must meet with the appropriate department dean who will assign a faculty advisor to assist the student. ATS Type A and B programs must be approved by the appropriate dean for award of credit. Exceptions to these requirements require approval. The student has the sole responsibility of developing the documentation (portfolio) for a Type B proposal. The student must provide all verification and supporting documents for the request and will usually be currently employed in the specialized technology undertaken. **The Veterans Administration requires prior approval of the Type B program before payment will be made.**

The college currently offers Type A programs in Instrumentation and Control and Type B programs in the general areas of Building/Construction Trades Technology, Industrial/Manufacturing Trades Technology, and Utilities Services Production/Maintenance Trades.

All student regulations and fees apply.

ASSOCIATE OF ADULT INDIVIDUALIZED STUDY

Traditional degree programs are not totally appropriate for all students. Many students at the community college level, including non-traditional students, have unique educational and career goals. Jefferson Community College now offers the Associate of Individualized Study (AIS) Degree.

The AIS Degree program is designed by and for the student. The degree is built on the student's unique educational

objectives. This AIS Degree is ideal for students who have a variety of college-level courses but no specific degree or who have attended different colleges so they have multiple transcripts. JCC advisors will work to combine these credits with JCC classes to create an individualized degree. Students also may request credit for life experience in place of a course offered at JCC. This request must be accompanied by a portfolio that clearly demonstrates that the student has achieved at least 70% of the course outcomes for which credit is requested. These credits may be applied to the AIS degree. The procedure for requesting credit for life experience will be explained to the student when he or she makes the request. Taking a class in assembling a portfolio is advised.

A series of steps and a three-member advisory committee will be used to ensure the success of a student who is a candidate for the AIS degree.

1. The student will be required to complete an application for admission to the AIS program. This will be reviewed by the program director for humanities and social sciences.

2. One person from the college (in most cases a faculty member) must serve as a representative for the student's concentration area. This will serve as an indication that the applicant has reviewed the proposed program with an appropriate advisory committee member.

3. An appropriate department dean also must sign off on the application form.

Each applicant will have an advisory committee comprised of three people to help ensure that the students is on track with degree requirements.

DEPARTMENT OF WORKFORCE AND COMMUNITY OUTREACH

In today's global marketplace, rapidly changing job markets and new technologies, individuals are required to have broad-based, transferable skills. For this reason, lifelong learning for adults is becoming increasingly more important. In 1995, the National Clearinghouse for Educational Statistics (NCES) reported that 40% of employed adults participate in work-related courses. Since 1970, the Department of Workforce and Community Outreach has provided training and related services for approximately 68,000 individuals.

The global marketplace is mirrored right here in our community. The pace of technological change, corporate downsizing, the need to upgrade skills to secure new employment or advance to higher positions and the declining power of a high school education have sent many workers back to school. The Department of Workforce and Community Outreach works with professional associations, state and national agencies, JCC's academic departments, and business and industry to develop programs that fit the needs of the community.

The department is located in the college's Training Center at 110 John Scott Highway, Steubenville. The center is adjacent to the college's main building.

CREDIT COURSES

Credit courses scheduled by the Department of Workforce and Community Outreach are designed to help community members enter the job market with the edge they need to succeed in today's competitive workforce.

Tuition for these credit courses follows the cost per credit hour structure of credit courses offered in other academic departments. Some courses may have nominal lab fees.

Refund of fees is in compliance with the guidelines set in the student catalog. These refund guidelines do not apply to classes that start after the first week of any semester (flexibly scheduled courses). The \$20 application fee is nonrefundable, regardless of when a course is scheduled to begin. Registration is through the HOST Center.

New students will receive an application and begin the one time registration process (\$20 application fee is nonrefundable). The process has three steps:

1. Completion of the application
2. Taking a proficiency examination prior to the first week of classes (registration fee includes this test)
3. Enrollment into the course of choice is through the college's HOST Center

Returning students, those with a JCC application on file, can also register in the HOST Center.

CONTINUING EDUCATION UNITS

The department offers courses of an occupational nature which qualify professionals for continuing education units (CEU). The CEU's purpose is to give the individual a permanent, quantified record of courses taken to upgrade occupational knowledge and skills. Noncredit courses which carry CEUs are so designated in the course description. Programs planned for local professionals are approved through 16 state and national agencies.

The department offers or is prepared to develop and implement programs in virtually any subject for which sufficient demand is indicated by local professionals and which is consistent with the institution's community college mission.

ACADEMIC OUTREACH

Academic Outreach within the Department of Workforce and Community Outreach encompasses the offering of both credit and noncredit classes off campus. The program's goal is to reach out to all areas of the Tri-State that are not served by higher education and to offer a full range of programs provided by the college for traditional and nontraditional learners.

Courses include credit classes for the academic programs and credit classes for continuing education certificates. Tuition and fees follow the guidelines of credit and noncredit courses.

NONCREDIT COURSES

Noncredit courses provide the opportunity for lifelong learning for all members of the community. Each semester classes in a variety of subjects and skills are offered in an informal and noncompetitive environment where an interest in learning is the primary consideration. Admission requirements, entrance examinations, and application fees are not required for enrollment. Courses and special programs are designed for adults and children. Certificates of achievement are given for students who have successfully completed skills-related classes.

Fees for noncredit courses will vary according to the length of the course, use of consumable materials, and use of special equipment. The department strives to keep these costs within reach of all those who may benefit from the learning experience. Fees are payable in full at the time of registration. Ohio residents 60 or older may enroll tuition-free on a space-available basis once the course is financially self-supporting. Tuition is waived but senior citizens will be charged for applicable lab/accreditation fees and any related instructional materials.

NONCREDIT ONLINE COURSES

Noncredit online courses from Education 2 Go are available in computer and Internet training, large business management, small business development, and personal enrichment. A complete listing of the classes can be found on JCC's website at www.jcc.edu. Classes start the second Wednesday of every month and are usually six weeks in length. Students can register online but must submit payments to the Department of Workforce and Community Outreach.

BUSINESS AND INDUSTRIAL TRAINING

Jefferson Community College specializes in working with local businesses to assist them in identifying training/retraining needs. Training developed as a result of various forms of needs assessments can be customized, scheduled on or off campus, and offered for credit or noncredit. Customized training topics include, but are not limited to:

- OSHA Requirements
- Technical Training (welding, electrical, hydraulics, and PLCs)
- ISO/QS/AS 9000 Compliance/Auditing
- State/Nationally Required Certifications
- Train-The-Trainer
- Supervisory Training
- Pre-Employment Training
- Computer/Software Applications

A grant funded portable computer lab can conveniently bring training to the worksite. This is just one of the ways the department returns state tax dollars to the community. Additional grant funding targets defraying training costs for local businesses/industries (when applicable).

TRAINING GRANTS

Ohio employers are discovering a problem-solving resource for employee selection, training, and retraining. EnterpriseOhio Network is a statewide association of 54 public two-year colleges and university branch campuses. Since 1986, these schools have been partnering with businesses, organizations, and pub-

lic service agencies and making learning in the workplace count.

Through this association, JCC has available Targeted Industries Training Grants. The TITG is a financial assistance award available for eligible employers who partner with an EnterpriseOhio Network campus to provide training and/or assessment services. The network:

- awards grants for pre-employment assessment, employee training, employee assessment, job analysis, and related services
- provides financial support for up to 75% of total eligible cost of training, assessments, and related services
- targets manufacturers and their suppliers, as well as companies experiencing a shortage of information technology skills.

STEP UP

PRE-EMPLOYMENT TRAINING

STEP UP, pre-employment training, offers area residents the opportunity to learn and improve needed workforce skills. Open to adults 18 or older, it is a 90-hour free program designed to prepare participants for the world of work by improving basic computer skills, replicating job settings, emphasizing punctuality and attendance. **STEP UP can not be taken in individual modules; participants must commit to the whole program.**

Funding is provided by the Ohio Adult Basic and Literacy Education (ABLE) Program.

OHIO VALLEY CRIMINAL JUSTICE TRAINING ASSOCIATION

The Ohio Valley Criminal Justice Training Association provides cost effective continuing education for local law enforcement professionals. A governing board of individuals employed in a variety of law enforcement careers determines training offerings based on input from the field. Membership requires individuals to be employed in the law enforcement profession and to pay an annual membership fee.

ADMISSIONS

Jefferson Community College, as a state-supported, higher education institution, has an "open-door" admission policy. The minimum qualification for admission to the college is a high school diploma, a General Educational Development (GED) certificate, or completion of an approved home school program. This does not mean that any applicant is accepted directly to any course or program without an adequate background. Jefferson Community College offers many courses which provide applicants the opportunity to develop sufficient background to enter the program of their choice.

Persons lacking a high school diploma or equivalent may be admitted by the college as regular or special students if certain conditions are met. Information about the conditions is available in the Admissions Office at the HOST Center. If admitted, these persons will be permitted to accumulate a maximum of 30 semester credit hours while pursuing a GED. Proof of earning a high school diploma or a GED must be presented to continue taking credit courses at the college once this maximum is reached.

High school students who have completed their sophomore year may enroll in courses with the recommendation of their guidance counselor or principal as a special student. The college participates in the post-secondary enrollment option program approved by the Ohio legislature. Information is available through the Admissions Office or from a high school counselor. The college also has agreements with some secondary schools to allow credits to be granted for courses taken in high school via Tech Prep, or in criminal justice or education programs. Conditions for the granting of these credits are that the student attend JCC immediately after graduating from high school and successfully complete 12 credit hours at the college.

Jefferson Community College now grants credit for advanced placement courses in certain cases. The applicant should contact the dean of the appropriate department to find out about credit for

advanced placement classes in a particular area. For example, the Humanities and Social Sciences Department at JCC will grant credit for ENG201 Introduction to Literature to students who have taken a literature class in high school and successfully passed the English literature and composition placement test. However, to receive ENG101 English Composition I credit, the student must also present a portfolio of writings that match certain criteria.

To apply to JCC, applicants may obtain an application from the Admissions Office in the HOST Center, use the application in this catalog, or print one from the college's web site at www.jcc.edu. This should be completed and returned to the Admissions Office. A nonrefundable admissions fee of \$20 will be assessed each student during registration at the first semester of enrollment.

High school graduates must request that their high school forward an official transcript of their high school grades to the Admissions Office. A transcript request form is located in the back of this catalog. If submission of a high school transcript is impractical, the director of admissions may accept other documentation of high school graduation such as military records, transcript of college degrees awarded, etc. Applicants having GED certificates are required to have an official GED transcript sent to the Admissions Office by the department of education from the state in which the test was taken.

For persons wishing to transfer college credits to Jefferson Community College, an official college transcript must be forwarded to Jefferson Community College by the college(s) from which the credits are to be transferred.

All credentials submitted for admissions become the property of the college and are not returnable or transferrable.

The applicant is responsible to supply truthful and complete information on the application for admissions. If the college subsequently determines that financial

aid or some other service was provided the student based upon inaccurate information provided, the student may be denied further consideration for the service and/or may be required to reimburse any overpayment resulting from the use of the invalid information.

Successful implementation of an "open-door" admissions policy requires an emphasis on pretesting and admissions counseling; therefore, a personal interview is in the best interest of the student.

Foreign student admissions requirements are listed under instructional fees.

PLACEMENT TESTING POLICY

As a means of assisting students in selecting appropriate courses, all new full-time and part-time degree- or certificate-seeking students, and students who wish to enroll in an anatomy, chemistry, math or English course or other course(s) requiring an English, math or related prerequisite, are required to take college placement tests, which are to be completed prior to class registration. The college currently uses the COMPASS placement test, which identifies students' academic strengths and weaknesses in the areas of writing, reading, and mathematics. This is supplemented by anatomy and chemistry placement tests specifically designed by JCC, and dependent upon the student's major. The test results will be used to determine whether a new student will register for college-level coursework, introductory coursework, or developmental coursework. Placement testing may be waived for persons presenting evidence of successful completion of college-level coursework in the subject areas tested (i.e., college transcript or grade report). Placement testing may also be waived for persons presenting official ACT/SAT sub-scores for English, reading, and mathematics. These sub-scores may be used alone or in conjunction with the COMPASS placement test to determine the correct placement for a student. ACT/SAT scores more than five years old will not be accepted.

STUDENT ADMISSIONS GUIDE

DETERMINE YOUR STUDENT STATUS AND GOAL

	If you are	And your goal is	Step 1 Special Application Procedures	Step 2 Welcome	Step 3 Placement Testing	Step 4 Orientation	Step 5 Advising/ Registration
N E W	New, first time in college - seeking to enroll at JCC after graduation or GED completion and adults with prior college	Seeking a degree or certificate at JCC after graduation or GED completion and adults with prior college	None	Obtain information on the specific steps for enrollment from Admissions Office/ HOST Center	Complete placement testing for English, reading, and mathematics, etc. Schedule an appointment with Learning Skills Lab 740-264-5591, ext. 213 or 214	This very important activity will explain what services are available, who to contact, how to get around campus, and when to do what is important to be successful at JCC	Go to the HOST Center to obtain help in: selecting and scheduling appropriate classes based upon placement testing results and/or college transcripts
F O R M E R	Former JCC student who has previous college experience/ JCC	Seeking a degree or certificate at JCC and/or other college/university	If you have not enrolled in classes for years, you must have your student file reactivated	Obtain information on the specific steps for enrollment from Admissions Office/ HOST Center advisor	Placement testing may be recommended if switching majors. Consult a HOST Center advisor	Orientation is recommended	Make an appointment with the HOST Center if you have achieved 20 credit hours or less
T R A N S F E R	Incoming transfer student who has attended another college or university	Seeking a degree or certificate at JCC other other college/ university	Have official transcript sent directly from the issuing institution to: JCC Admissions Office, 4000 Sunset Blvd., Steubenville OH 43952 NOTE: Hand carried transcripts are not considered official. JCC must have transcripts before starting classes	Obtain information on the specific steps for enrollment from Admissions Office/ HOST Center	Placement testing may be recommended even if you have previous college experience. Contact HOST Center staff	Orientation is recommended	Make an appointment with a HOST Center advisor
T R A N S I E N T	Transient student who is attending another college or university and is taking JCC courses to transfer back to the home institution	Seeking a degree or certificate at another college/ university	Declare transient as a major. Circle #4 on college application form to transfer before completing a degree or certificate	Obtain information on the specific steps for enrollment from Admissions Office/ HOST Center	If you intend to take English or math courses without record of transfer credit in English or math, you must complete placement testing	Orientation is recommended but not required	JCC counselors help you schedule your classes. NOTE: if you are a student at another institution, check with advisors at the home institution to set course transfer
P I/ C D	Taking a class for personal interest or career development	Not seeking a degree or certificate	Circle #1 on college application form (personal interest)	Obtain information on the specific steps for enrollment from Admissions Office/ HOST Center	If you intend to take English or math courses without record of transfer credit in English or math, you must complete placement testing	Not required	HOST Center advisor will help you schedule classes
P S E O	High school student enrolling in Post Secondary Enrollment Option (PSEO)- (140) while still attending high school	Taking JCC classes while still a high school student	Complete placement tests for reading, math, and English,. Call 740-264-5591, ext. 142 for an appointment. When notified of eligibility, obtain a PSEO application from high school counselor. Send the completed application & all requirements to the JCC Admission Office .	Refer to written correspondence from the PSEO Program	Refer to special PSEO application process	Once you become eligible and complete the PSEO application process, written notification about the mandatory orientation will be sent to you	Scheduling and registration process explained at mandatory PSEO orientation. High school guidance counselor to explain the equivalency of a given JCC course in meeting high school graduation requirements. JCC advisors advise about JCC academic programs

HEALTH SCIENCES PROGRAMS

SUMMARY OF PROGRAM APPLICATION/ADMISSION CRITERIA 2005-2006

Program	Clinical Lab Technician	Dental Assisting	EFDA	Paramedic	Phlebotomy	Medical Assisting	Practical Nursing	Radiologic Technology	Respiratory Therapy
Medical History	Required	Required	None	Required	Required	Required	Required	Required	Required
Health Insurance Verification	Required	Required	Required	Required	Required	Required	Required	Required	Required
High School Transcript or GED Score of 45 or Certificate of Homeschool Completion	Required	Required (typing**)	Required	Required	Required	Typing/other**	Required	Required	Required
For Associate Degree: ACT Composite Score (for people who took ACT 10/89 and after) OR a SAT Score is Required Check with HOST Center if ACT was taken before 10/89	ACT 18* OR SAT 720	ACT 17* OR SAT 680 Score not required for certificate	Not Required	Not Required	Not Required	ACT 17* OR SAT 680 Score not required for certificate	Not Required	ACT 17* OR SAT 680	ACT 17* OR SAT 680
College Placement Tests*** English, Reading Math Anatomy Algebra Chemistry	Required Required Required Required Required	Required Required — — —	No Placement Test Required	No Placement Test Required	Required	Required Required — — —	Required Required Required Required —	Required Required Required Required —	Required Required Required Required Required
Courses to be scheduled based on placement scores	ENG081 ENG082 ENG091 ENG093 MTH081 MTH096 MTH097 MTH099 BIO101 CHM091	ENG081 ENG082 ENG091 ENG093 MTH081	—	—	ENG081 ENG082	ENG081 ENG082 ENG091 ENG093 MTH081	ENG081 ENG082 ENG091 ENG093 MTH081 MTH096 BIO101	ENG081 ENG082 ENG091 ENG093 MTH081 MTH096 MTH097 BIO101	ENG081 ENG082 ENG091 ENG093 MTH081 MTH096 MTH097 MTH099 BIO101 CHM091
Program Pre-Entrance Exam and/or Professional Credentials	None	None	CDA, RDH or CODA Credentials	EMS Exam	None	None	None	None	None
Maximum Class Size	16	24	7	16	12	25	44	16	14

It is the responsibility of the applicant to submit program prerequisites to the Admissions Office.

* If ACT or SAT Scores are below the minimum required by a specific program but the student has achieved a GPA of at least 2.5 within the last 5 years (taking a minimum of 9 credits concurrently of college-level courses) then the ACT/SAT scores can be waived. Courses that begin with a 0 (zero) are not college-level courses. ACT/SAT scores are waived for students who have previously earned a minimum of an associate degree or completed an equivalent program approved by the program director/dean.

** Typing or computer course in high school or college or passing grade on typing proficiency test is required for dental assisting. Typing course in college or passing grade on proficiency test is required for medical assisting. Also, for medical assisting, completion of BUS111 and HSC101 courses are required for program acceptance.

*** To fulfill program prerequisites, program applicants must meet minimum acceptable score ranges on placement tests OR successfully complete ("C" grade or better) related introductory coursework on a college level.

The Dental and Medical Assisting Programs offer both a one-year certificate and an associate degree.



The annual Honors Convocation recognizes academic excellence.

Student who are attending JCC in the summer term from another institution may present a letter from his/her home institution stating the home institution will guarantee acceptance of a JCC course(s). This letter will waive required testing for the course(s) listed on the letter. JCC will assume the home institution has prepared the student for the JCC course(s).

Initial placement testing has no fee. One retest is permitted with a fee of \$5. Information about all testing requirements is available in the HOST Center.

The American College Test (ACT) is administered at selected sites throughout the year. ACT application packets listing the test dates and locations are available in the Admissions Office.

While placement test results will not affect admission to JCC, they may affect acceptance in a course or program. Each applicant is urged to complete placement testing as soon as possible. Further information on placement testing or select program entry requirements is available in the individual program descriptions, which appear in the catalog, or by contacting the HOST Center.

SAT Scores and Placement

Reading:

- 0-274 ENG082 General Reading
- 275-374 ENG091 Intro to College Reading
- 375-800 No reading requirement needed

English:

- 0-299 ENG081 General English
- 300-399 ENG093 Intro to College English
- 400-499 Gray Area - student and advisor decide on ENG093 or ENG101
- 500-800 ENG101 English Composition I

Math:

- 0-440 Student must take COMPASS
- 441-620 Student may take any of these: BUS111, CIS230, MTH100, MTH101, MTH102, MTH110, MTH111, MTH120, MTH121, MTH128
- 621-800 Student may take any of these: Any course listed above for the 19-27 category and/or the following: MTH210, MTH220

ACT Scores and Placement

Reading:

- 0-10 ENG082 General Reading
- 11-14 ENG091 Intro to College Reading
- 15-36 No reading requirement needed

English:

- 0-11 ENG081 General English
- 12-16 ENG093 Intro to College English
- 17-18 Gray Area - student and advisor decide on ENG093 or ENG101
- 19-36 ENG101 English Composition I

Math:

- 0-18 Student must take COMPASS
- 19-27 Student may take any of these: BUS111, CIS230, MTH100, MTH101, MTH102, MTH110, MTH111, MTH120, MTH121, MTH128
- 28-36 Student may take any of these: Any course listed above for the 19-27 category and/or the following: MTH210, MTH220

ENTERING DATES

Students may enter Jefferson Community College at the beginning of any regular enrollment period. This does not mean, however, that the courses usually taken in the first semester of a given curriculum sequence will be offered each semester and courses with prerequisites may not be open to the new student. As a result, the length of time required for completion of most programs may be lengthened by entering the college at a time other than the fall semester.

HIGH SCHOOL DIPLOMA/ EQUIVALENCY

In order to enroll (except special students) and/or graduate from Jefferson Community College, a student must submit an official high school transcript or equivalency documenting a student's graduation from high school or completion of a high school equivalency program by the time the student has completed 30 credit hours. An official copy of a transcript or equivalency is one that has not been in the student's possession but has been mailed directly from the issuing institution to Jefferson Community College.

Jefferson Community College will consider the following appropriate documentation of high school graduation or equivalency:

1. High school transcript annotating high school graduation date
2. GED transcript from testing agency
3. Certificate of completion of an approved home school program signed by the program principal

EARLY ENROLLMENT HIGH SCHOOL STUDENT

Qualified high school students may register for courses at the college under terms and conditions prescribed by the Ohio General Assembly and the college. Information about early enrollment qualifications and the post-secondary enrollment option, and required application

forms can be obtained from the high school guidance counselor or the college's Admissions Office.

Being placed in the college situation where the median age of the students is 28 and where it is taken for granted that a high level of social maturity exists in each student could make early enrollment a negative experience for some high school students. For this reason, careful consideration should be given to not only the student's intellectual readiness to handle college-level work, but also to whether the student is emotionally and socially ready to function in a completely adult environment.

RE-ADMISSION TO THE COLLEGE

A student who has been suspended from the college for academic deficiency may request readmission at the end of a minimum of one semester separation.

For further information, students should refer to the Academic Standards section of this catalog.

FRESH-START POLICY

A student who has not attended Jefferson Community College or any other accredited higher education institution for a period of six years or more may request the college to invoke the "fresh-start" policy. The fresh-start policy is designed for students with poor past academic records and who desire an opportunity to begin anew. The policy requires college approval and should be discussed with an advisor, admissions officer, and/or appropriate dean. The fresh-start program is an all-or-nothing program in which the college either accepts all of a student's previous credits or, in the alternative, the college accepts

none of the student's past credits -- a true "fresh start." Policy applications can be obtained at the student records office.

STUDENT HOUSING

Because students commute daily to Jefferson Community College, no on-campus dormitories are available.

Dormitory rooms may be available through an agreement with the Franciscan University of Steubenville and the Trinity Health Systems School of Nursing, both on a space-available basis. Application for this housing is made through Jefferson Community College's Admissions Office. The selection and approval of housing facilities are entirely at the option of the student and/or parents. Therefore, Jefferson Community College accepts no responsibility for supervising off-campus housing.

REGISTRATION

Class registration dates and times will be announced in the class schedule published twice a year. The registration dates and the class schedule also are posted on the college's web site at www.jcc.edu. All new students are strongly requested to attend an orientation program. All students are responsible for meeting all registration dates and procedures announced.

A student is not considered to be enrolled in a course until registration has been completed during the announced registration period. Each student must submit a schedule of classes, and all fees must be paid or payment arranged in order to complete the entire registration process.

FACULTY ADVISORS

The advisory system is designed to assist each student with problems that affect academic progress. This often includes referral of the student to other resources on campus.

New students are advised in the HOST Center. As students progress towards their selected majors, they make a transition to a faculty advisor, who usually is actively involved in the student's major area of preparation.

The faculty advisor assists the student in the effective planning and successful completion of all phases of scheduling courses and the academic process. The advisor should be contacted immediately when encountering any academic program/concern and, as a minimum, once a semester for advice.

SCHEDULING

Prior to the start of each semester, students should complete a student schedule request form with the help of the faculty advisor. The semester schedule indicates the courses and sections in which the student may enroll for that term. Students will obtain pertinent course information from the semester class schedule. They must be sure they complete the form accurately, particularly course number and credit hours, and

then **obtain the advisor's signature**. Students will benefit greatly by spending a little extra time on their original schedule so they will not have to make changes later.

ELECTRONIC REGISTRATION

Students who have already been accepted for admission to the college may take advantage of the college's electronic registration process, which is found under E-Registration at the college's web site www.jcc.edu.

In order to register a student must also have completed all required placement tests, met all prerequisites, and have no restrictions (academic or financial). Students should always consult with their advisors about scheduling.

The college will use a submitted schedule to register a student for the selected course(s). Available course openings and course prerequisites will be checked upon receipt of the schedule. The student will be advised by e-mail (by postal service if no e-mail address) regarding the status of the schedule.

LATE REGISTRATION

Students may register for classes during the announced late registration period of the semester without special permission and without assessment of a late fee. Registration after the late registration period of the semester is permitted only under unusual circumstances and requires the approval of the course instructor and course department dean. The student may be required to provide written documentation to support the request for late entry and may be charged a late fee.

AUDITING

A student with proper prerequisites may register for and attend certain courses as an auditor. The student is not held responsible for the regular class work and preparation of assignments and receives no credit for the course. All regular fees, as well as other applicable fees, are required and the course is considered part of the total course load. Audited courses will not apply towards the fulfillment of graduation requirements or to the total load in determining financial aid eligibility.

A student enrolling as an auditor will be permitted to enroll only after the regular students have been accommodated and only with the approval of the assigned advisor, the instructor, and department dean based on the student's identified major.

A student who has registered with the Student Information Center as an auditor may change from audit to credit or credit to audit **only during the first 14 calendar days** of each regular semester (first seven days of Summer Sessions I and II) with the approval of the assigned advisor, the course instructor, and the department dean. A student must complete a student schedule change form at the Student Information Center or the HOST Center.

PROFICIENCY EXAMINATION

The purpose of this examination is to permit students who believe they are qualified through education, training,

and/or experience the opportunity to pass over certain courses in order to take more advanced work.

The proficiency examination, which must be requested, will be comprehensive enough to be representative of the entire content of a course and is offered during the regular semester.

Students desiring to take the proficiency examination must apply to enroll in Jefferson Community College and secure the proper form from the Student Information Center. The student must then receive approval of the appropriate department dean, after consultation with an advisor and/or the instructor involved. Upon approval, the student must pay the appropriate fee to the Business Office for each proficiency examination taken. The student will then return the form to the examiner. The examiner will record the grade, and the results will be reviewed by the department dean. The department dean will make the recommendation to the Student Information Center that the credits passed by the examination become a part of the student's permanent record or to be maintained with the student admission application.

A student is not eligible to take a proficiency examination more than once for each course, nor is a student eligible to take a proficiency examination for a course the student has previously taken.

CLEP TESTING

The College-Level Examination Program (CLEP) is a national testing program administered by the College Board designed to measure student academic proficiency gained through nontraditional educational experiences such as correspondence courses, military training, and on-the-job training programs. Detailed information about CLEP testing is available through the Admissions Office. A student can be granted college credit at Jefferson Community College for selected courses based on the results of CLEP testing. To receive credit, the student must achieve or exceed the American Council on Education (ACE) recommended minimum score.

Persons desiring to achieve credit through CLEP testing should have official

copies of test scores sent to the Admissions Office. The college will accept only scores less than six years old, and only exam scores for which there are equivalent courses offered at Jefferson Community College. It is also the decision of the department dean to determine if that CLEP exam credit will count toward graduation. Individuals who desire to take CLEP exams should make arrangements with Franciscan University of Steubenville, which is a national CLEP testing center.

TRANSFER CREDIT

Transfer students must comply with all admission procedures.

No credit will be transferred with the letter grade less than a "C-." Courses taken at another college in which a letter grade of "P" was earned can be accepted. All credits accepted from another institution will be designated by "P" on transcripts. The grades earned at other institutions will not be averaged with the grades earned at Jefferson Community College. Credits must have been earned within the last five years in order to be transferred to JCC unless approved by the department dean.

Credit from other institutions will be transferred at the discretion of the dean and are subject to the following:

- no technical courses (as defined by each department and program) will be transferred unless equal to an existing technical course at Jefferson Community College;
- general studies courses (as defined in this section) will be transferred if part of one of the following categories:

Humanities: literature, foreign language, art, music, philosophy, religion, theater, communication, art history, dance, film and linguistics.

Social Sciences: history, economics, psychology, social work, sociology, political science, women's studies, minorities studies, geography, anthropology and archaeology.

Science: chemistry, computer science, physics, biology, geology, ecology and astronomy.

Mathematics: quantitative analysis, linear algebra, modern mathematics, etc.

Determination for such general studies electives transfer will be made by the dean of the degree-granting department. This policy will apply only to general studies electives and not to specific degree requirements, whether or not part of the above categories. Transfer credits will be listed on the students' transcript as general studies credits in the appropriate category.

A request for credit evaluation must be initiated by the student and filed with the Admissions Office. Once a student has registered for classes, any request for the transfer of credits must be directed to the Student Information Center. In order to receive a degree from JCC, a student must have successfully completed a minimum of 18 semester hours in courses within the designated program at JCC.

All JCC students who wish to complete course work at other institutions and have credit for such course work accepted by the college must obtain approval from their department dean prior to registration at the other institution.

Only credits from institutions accredited by regional accreditation agencies such as the North Central Association of Colleges and Schools will be accepted.

RETURNING STUDENTS

Students in good standing who have previously attended Jefferson Community College are welcomed to return to the college when they wish to continue their studies. Such students should contact the Student Information Center prior to registration to update their status as returning students. They also should contact the Admissions Office to ensure that they meet the requirements for admission to their chosen major.

ADDING COURSES

Students may add courses to their schedules during the first week of a regular semester and on the first two days of Summer Sessions I and II with the

department dean's approval. The appropriate form can be obtained from the Student Information Center. The completed form must be approved by the department dean and the Student Information Center. The addition of credit hours may increase the student's tuition and fees. Students may change sections of the same course during the first two weeks of the semester (first week of Summer Sessions I and II). No student may change sections after the second week of classes, except self-paced classes.

DROPPING COURSES

Students may drop courses from their schedules during the first two weeks of a regular semester and first week of Summer Sessions I and II. The Business Office will refund, where applicable, a student's fees during the first two weeks of a regular semester or first week of Summer Sessions I and II, according to the established refund schedule. Drops after the second week are considered to be withdrawals. Students may withdraw from a course through the 10th week of the regular semester (or its 60% equivalent for summer, flexibly scheduled, or mini terms).

The student must obtain and sign a schedule change form to be returned to the Student Information Center for processing. Dropping a course may affect student financial aid receipt and health insurance if carried on a parent's policy.

WITHDRAWAL FROM A COURSE

Students will receive a grade for each class on their schedules after the second week of the semester (first week of Summer Sessions I and II). Students may withdraw from a course through the 10th week of the regular semester (or its equivalent for summer, flexibly scheduled, or mini terms). A student who wishes to withdraw from a class must obtain a request form from the Student Information Center, have the form signed by the course instructor, and return the form to the Student Information Center. A grade of "W" will be received.

To avoid the possibility of receiving an unfavorable letter grade for the course, this form must be completed with all required signatures and returned to the Student Information Center.

Early withdrawal from a course does not prohibit the student, at the discretion of the instructor, from attending the remainder of the academic classes and sitting for the final examination in preparation for retaking the course. However, withdrawal from a course may affect financial aid benefits even if attendance and testing are continued.

Withdrawals are not subject to refunds. The grade of "W" is recorded as zero hours earned and zero quality points. Withdrawals from a course(s) may affect receipt of student financial aid.

WITHDRAWAL WITHOUT NOTIFICATION

A full- or part-time student who withdraws, drops out, or stops attending a course without following the prescribed withdrawal procedure will receive an official transcript grade of "F" or "N" for the course and forfeit all fees paid.

TRANSCRIPT REQUESTS

Transcript requests must be made to the Student Information Center in writing and signed by the student. Transcript request forms are available from the Student Information Center. A student will be required to sign for release of academic records before a copy of the transcript is released.

A fee of \$5 will be charged for all copies. The fee is payable at the time the transcript request is made. Current students should allow at least 24 hours for processing of transcripts and other official documents. Other student requests will be processed within 14 days.

CHANGES IN NAME, ADDRESS, MAJOR, ETC.

The Student Information Center maintains a substantial amount of information about each student which is used by the college to forward official correspondence and communications and to administer and improve planned education. Keeping the college advised of current mailing and telephone information is the responsibility of the student. Students should notify the Student

Information Center immediately if the student's name, address, phone number, marital status, etc., changes during enrollment, by completing the change of name/address form, which is available at the Student Information Center.

Students must see their department dean to change their major field of study. The requirements to be met for completion of the new major will become those listed in the official catalog which is current at the time the change in major was approved and implemented.

In order to utilize the advantages of the computer, it is necessary for the student to use the Social Security number in addition to the student's name on many college forms. Incorrect numbers may cause serious errors in registration and grades.

IDENTIFICATION CARD

JCC identification cards are issued during the first two weeks of each semester. A student must have a current ID to use the computer facilities.

FINANCIAL AID

Financial aid is awarded to students enrolled in certificate or associate degree programs to help defray the cost of tuition, fees, books, room and board, transportation, and personal expenses. Most financial aid is awarded to students on the basis of need. Financial need is the difference between the total cost of attending Jefferson Community College and the financial resources available to meet this cost.

Parents are expected to make a maximum effort to assist in meeting college expenses.

Financial aid applicants are responsible for supplying truthful and complete information. If the college subsequently determines that financial aid or some other service was provided to the student based upon inaccurate information provided, the student may be denied further consideration for the service and/or may be required to reimburse any overpayment resulting from the use of the invalid information. Financial aid applicants must inform the college of any federal or state-based financial aid received at any college, school, or training program the student attended. This information must be provided to the college at the time the student applies for admission and/or when he/she applies for financial aid.

Financial aid counseling is available to any student or parent interested in enrolling at Jefferson Community College. If a student is unsure of whether or not

he/she is eligible for financial assistance, the student is encouraged to contact the financial aid office for an appointment.

DEFINITIONS OF FINANCIAL AID

Scholarship:

A gift award of money to a student of outstanding academic, athletic, or talent qualifications

Grant:

A gift award of money, generally in combination with other types of aid, to a student of at least average academic qualifications with the amount determined by financial need

Loan:

A repayable award to a student eligible for admission with the amount determined by financial need

Work Study:

Usually on-campus employment where the student is paid on a biweekly basis for hours worked

COLLEGE SCHOLARSHIP AND LOAN PROGRAMS

In order to participate in the following scholarships and/or loans, students should contact the Student Information Center. The college will not discriminate in the administration of these programs

against any individual on the basis of race, color, national origin, sex, religion, or handicap.

Horizon Grant -- Jefferson Community College has established a tuition grant program for Jefferson County residents to help in their pursuit of higher education. Grants for the 2005-2006 academic year will be awarded to high school seniors applying to the college from state-chartered, public, and private high schools, and approved home school programs. The high school graduate must be a Jefferson County resident and have a cumulative high school grade point average of 2.5 or better. The grant will cover tuition charges for credit courses for four successive (excluding summer) semesters of attendance, provided the student enrolls full time starting with the fall of 2005. The grant does not cover books, supplies, lab or technology fees.

Upper Ohio Valley Grant -- Jefferson Community College has established a tuition grant program for Jefferson County high school graduates. Grants for the 2005-2006 academic year will be awarded to residents from the Upper Ohio Valley counties bordering Jefferson County and West Virginia reciprocity counties, who graduate in 2005 FROM A JEFFERSON COUNTY HIGH SCHOOL (or have successfully completed a program offered by the Jefferson County Joint Vocational School). Recipients must have a cumulative high school grade point average of 2.5 or better. The grant will cover tuition charges for credit courses for

four successive semester of attendance (excluding summer), provided the student enrolls full time starting with the fall of 2005. The grant does not cover books, supplies, lab or technology fees.

SCHOLARSHIPS

Jefferson Community College offers a limited number of scholarships. Eligibility is based on academic excellence and personal achievement. Financial need is considered as an underlying factor. Applications for scholarship are taken each spring through March 1 (unless an earlier date is specified by the donor) for the following academic year. Applications are available at the Student Information Center.

Alumni Scholarship -- Two \$500 scholarships will be offered to a Jefferson Community College student who is in the last year of study. It is based upon student involvement, academic performance, and financial need. The Jefferson Community College Alumni Council makes the selection annually.

Berkman Scholarship - The Berkman Scholarship was established in 2002 by Louis Berkman whose goal is to assist local residents pursuing an associate degree or certificate in higher education at JCC. The scholarship fund will award a scholarship up to the amount of tuition for an eligible recipient after all other aid is applied. Any employee or dependent of an employee of Louis Berkman Co. will receive first consideration for the scholarship. If there are no employees or dependents of employees eligible, the scholarship will be available to assist other qualified full- or part-time students.

Blaner Gift in Memory of Barbara Blaner Shields -- The gift was established in 2002 by Dorothy Blaner in memory of her sister, Barbara. Barbara Blaner Shields enrolled at the Jefferson County Technical Institute in fall 1969 and graduated with an Associate of Applied Business Degree in business management in 1972. During her life, Barbara worked in visual fashion display, in a local credit bureau business, and in the food services department of a school district. She was a beloved mother, wife, daughter, sister, and aunt. We remember Barbara enjoying in her family, her delight in cooking creatively, her

skills as an organizer, and her astuteness in handling financial matters. We honor her life by providing this monetary gift to a deserving student. The \$300 gift is designed to assist graduating students who are pursuing a bachelor's degree and planning to major in the fields of culinary arts, education, or business.

Board of Trustees Academic Scholarship -- An academic scholarship is offered to a member of the senior class from every high school in Jefferson County to attend Jefferson Community College. Eligibility criteria are high school class rank and overall quality point average. Applications are available through the high school guidance office and are due by April. The scholarship will cover four semesters of tuition, fees, and the cost for necessary books per semester.

Civic Service League of Steubenville Scholarship - This scholarship is available to any Jefferson County resident who is enrolled at Jefferson Community College. The scholarship is available to new or continuing students and there is no minimum number of credit hours required for eligibility. The award is \$200 per year with \$100 received each semester. The recipient will be required to maintain a 2.0 grade point average in order to continue receiving the scholarship for the second semester. The scholarship recipient must demonstrate outstanding scholarship. The applicant will be required to submit a JCC scholarship application, a personal essay describing why the applicant is deserving of the award and a letter of recommendation from a teacher or advisor who is familiar with the applicant's abilities.

Rev. George Crenshaw Scholarship -- The Rev. George Crenshaw Memorial Scholarship Fund was established in 1993 in memory of the Rev. George Crenshaw by family and friends. It is an endowed, restricted scholarship fund in which the interest income only will be distributed to needy and worthy students from Jefferson County. The scholarship is designed to assist students pursuing an associate degree or certificate at Jefferson Community College. The scholarship is in the amount of \$200.

Douglas and Betty Applegate Public Service Scholarship -- This scholarship will be awarded to a Jefferson County

resident with a cumulative grade point average of 3.0 or better who has completed at least 12 semester credit hours of coursework at JCC. The student should be pursuing a degree in the field of political science, government or public administration. A student who is enrolled in the Associate of Arts or Associate of Science program who intends to transfer to a four-year college to pursue a bachelor's degree in one of these fields would be eligible to apply. The recipient will receive an award of \$800 (\$400 per semester) for one academic year of full-time study at JCC. The recipient must maintain a 3.0 grade point average to retain eligibility.

Defenbaugh Scholarship -- This scholarship is for second-year students who have completed 30 credit hours and are enrolled on a full-time basis. Applicants must be working toward an associate degree. The scholarship was established by the Board of Trustees at the college. The scholarship is in the amount of \$600.

Edith Forester Scholarship -- The memorial scholarship in the amount of \$120 is for a student accepted in the Practical Nursing Program. Applicants must be Jefferson County residents, have a minimum 3.0 GPA, and have a high school transcript on file. Applicants must submit a personal essay detailing career goals, why the student feels they are worthy of this award, and how they feel nursing will further their goals. All federal and state aid must be used first to cover costs.

Nina Gentile Scholarship -- The Nina Gentile Scholarship was established in 2002 by Tony Gentile to honor his wife, Nina. The Gentiles' goal is to assist residents of Jefferson County pursuing an associate degree or certificate in higher education at JCC. The scholarship will award two \$500 scholarships to incoming freshmen each academic year.

Thomas George Scholarship - The Thomas George Scholarship will be awarded to a graduating senior of Edison High School. First priority is given to any "heirs at law" of Thomas George. If no George heir applies or is eligible, the recipient may be any other graduate. The student must have a cumulative GPA of

2.5. The recipient will be selected by officials at Edison High School. This \$500 award is for a full- or part-time student.

Hart Scholarship - The Thomas R. and Beth Hart Scholarship was established in 2003. Mr. Hart retired from Jefferson Technical College in 1990 as an associate professor in business technologies. The accounting program was Mr. Hart's interest and specialty. The Harts' goal is to assist residents of Jefferson County pursuing an associate degree in accounting technology at JCC. The scholarship will award a \$300 scholarship to an accounting student in his/her last semester of the accounting degree program providing adequate funding is available. Full- and part-time students may apply.

JCC Foundation Scholarship - This \$500 scholarship is to assist non-traditional students who are ineligible to receive financial assistance. Student must reside in Ohio or Brooke, Hancock, Marshall, Ohio or Wetzel counties in West Virginia. Applicants must submit a recommendation from an advisor, faculty member or a member of the community as well as a one or two paragraph response on the topic "What Achieving a Degree or Certificate Means to Me." They must apply for all assistance through the Free Application for Federal Student Aid (FAFSA). The recipient must take at least six credit hours.

JCC Leadership Book Stipend -- Any student attending or planning to attend JCC may apply for a book stipend for the first year (two semesters) at the college. The applicants must be a full-time student with at least 12 credit hours per semester and possess the following leadership skills: demonstrate leadership activities in high school or community service organizations, must join and take a leadership role in Student Senate upon acceptance at JCC, and maintain a 2.5 GPA. The stipend will pay for book charges of the student's first semester and will not exceed \$500 per semester. The second stipend is contingent on how well the participant has fulfilled his/her commitment. The student activities coordinator has application forms.

JCC Scholarship - This \$300 scholarship was established by the staff and faculty at JCC. The recipient must be purs-

ing an associate or certificate degree, must have a cumulative GPA of a 3.0 and have completed a minimum of 24 credit hours. An essay must be submitted regarding the applicant's career goals and worthiness of the award. A letter of recommendation from an advisor or faculty member is also required. The recipient must take at least six credit hours.

JCC Second Chance Scholarship -- The Second Chance Scholarship was established by JCC to aid students who have been determined ineligible to receive federal and/or state financial aid because of their previous academic record. The scholarship is designed to assist students pursuing an associate degree or certificate at the college. The scholarship can cover tuition, fees, books and supplies up to \$1,000 depending on the student's enrollment plans.

Samuel and Grace H. Johnston Scholarships -- The Samuel and Grace H. Johnston Scholarships are memorial scholarships established by the late Samuel and Grace H. Johnston. Samuel Johnston was a Trustee Emeritus of Jefferson Community College. Scholarships in the amount of \$1,200 will be awarded to students enrolled in the engineering or computer science programs at the college. Applicants must be working toward an associate degree and enrolled on a full-time basis. The student must also have a minimum grade point average of 3.0 if matriculating from high school or Jefferson Community College. Priority for these scholarships will be given to incoming first-year students.

McClelland Trust Fund -- The trust fund is a memorial established by the late Mrs. Lavina McClelland in memory of herself and her husband, the late F. Fred McClelland. Up to three recipients may be selected per year up to a maximum award of \$750.

Helen L. And James F. Murray Scholarship - This scholarship was established by James F. Murray in loving memory of his wife, Helen Louise Poindexter Murray. The recipient must be a graduate from Steubenville High School and pursuing an associate degree at JCC. Applicants must have a minimum 2.0 GPA, submit a recommendation from an advisor, faculty member or a member of the

community who is familiar with the applicant's qualifications, submit a letter regarding career goals and submit an application to enroll at JCC. The \$500 award is for a full- or part-time student.

Naylor Scholarship -- This is a scholarship established by Douglas F. Naylor to assist part-time students who have achieved at least 25 credit hours and who are working toward an associate degree. The scholarship will be in the amount of \$750.

Ohio Valley Panhellenic Scholarship - The Ohio Valley Panhellenic Scholarship was established by the Ohio Valley Panhellenic Association. The scholarship is designed to assist nontraditional, part-time students pursuing an associate degree or certificate at the college. The student must have completed at least six semester hours with a cumulative grade point average of 2.5 or higher prior to application. The scholarship is in the amount of \$400.

Project BEST Scholarship -- The Project BEST Scholarship Fund was established by the Board of Directors of Project BEST, (Building Efficiency by Striving Together), a construction industry labor-management cooperative committee. Any employee or dependent child of a participating contractor and/or participating construction trade union who plans to enter Jefferson Community College to pursue an associate degree is eligible to apply ("participating" means those contractors and/or construction trade unions participating in contributions made by Project BEST). The scholarship is in the amount of \$1,000 to be used solely for educational expenses such as tuition, fees, and books. The basic eligibility criteria is determined by Project BEST.

Senior Citizens -- Ohio residents over 60 years of age may enroll for regular credit courses at the college and not be required to pay tuition or application fee through Jefferson Community College Senior Citizen Scholarship Program. The scholarship does not cover books, supplies, or lab fees. Residents may enroll in credit courses on a space available basis provided they meet all prerequisites for the course.

LOANS

Jefferson Community College offers two loan programs to assist students in paying for college tuition costs. Both loans are interest free and available to full- and part-time students.

Short-Term Loan -- Students are required to pay a 20% down payment on current tuition costs prior to the semester payment deadline. The balance of the semester's tuition is due on an established deadline prior to the end of the current semester. Students may make weekly, monthly, or a lump sum payment prior to the due date.

Long-Term Loan -- Tuition for the year is estimated and a loan is generated for the entire academic year's tuition cost. Ten percent of the total loan is due as a down payment prior to establishing a payment schedule. The last date of payment schedule can be established is the semester payment due date for fall semester. The number of payments would depend upon the date of implementation of the loan. All loans must be paid in full by April 30 of each academic year. As registration for each fall semester begins in June, a payment plan could be negotiated at that time spreading the payments over a longer time period.

Requirements for either loan demand that a student be in good academic standing with his/her academic department and have a cumulative grade point average of 2.0. A student must also have an income that would be able to substantiate arranged payments. A student is not eligible for the loan to replace financial aid that may have been lost due to unsatisfactory academic performance. Additionally, if a student has previously borrowed under one of these loan programs, all payments must have been made as scheduled. Delinquent payments will make the student ineligible to receive future loans from the college.

If the student withdraws from classes at the college, the loan balance will be due subject to the college's refund policy.

Alternative Education Loans -- Jefferson Community College's Financial Aid Office also has information and applications for several third-party



Students get into the fun during an event in the student lounge.

alternative loans that are available. The loans are negotiated between the student and the bank and often times a credit check is required for approval. Students may borrow up to the cost of their education less any financial aid received and approval is solely at the discretion of the lending institution. Students may contact the Financial Aid Office for loan applications and contact information.

CAMPUS-BASED PROGRAMS

The funds in these programs are awarded directly to the college to distribute among those students who demonstrate a financial need. In order to qualify for these programs, a student must complete the Free Application for Federal Student Aid (FAFSA). When a student submits a FAFSA to the Student Information Center, the student should indicate interest in the campus-based programs: Federal Supplemental Educational Opportunity Grant program and Federal Work Study program.

Federal Supplemental Educational Opportunity Grant (FSEOG) -- A student does not need to repay a SEOG, but must, however, demonstrate exceptional financial need. Those students with the lowest family contributions will be considered first.

Federal College Work Study Program (FCWSP) -- This program is intended to provide financial assistance to students with financial need through employment, which is usually on campus. Tutoring/mentoring community service positions are also available. Part-time employment averaging 10 hours per work is available for students on this program. In exceptional cases students may work 30 hours a week.

FEDERALLY BASED PROGRAM

Pell Grant -- The Pell Grant is a federally assisted program designed to provide the foundation on which other aid can be built. It is in the form of gift aid which does not have to be repaid. The grant is available to full- and part-time students.

The college does not participate in the Guaranteed Student Loan Programs (Stafford, PLUS or SLS).

STATE-BASED PROGRAM

Ohio Instructional Grant (OIG) -- This grant is allocated to full- and part-time students who are from low- to middle-income families. Students must be legal residents of Ohio. Funds from this grant will pay only the cost of tuition.

AID APPLICATIONS AND DEADLINES

Financial aid applications are made available each January for the upcoming financial aid year. Students should file these applications as soon as their (and their parents, if applicable) tax information is available.

New federal regulations require the college to document/verify all sources of taxable and nontaxable income listed on the student's application for financial aid. Thereby, it will be beneficial to the applicant to secure this information before filing the application. Failure to document income will hinder the student from receiving financial assistance. This requirement also makes it necessary for a student to apply for financial aid at least eight weeks prior to the semester in which the student intends to enroll.

The basic application for aid is the Free Application for Federal Student Aid (FAFSA), which may be obtained from the college's Student Information Center or from the applicant's high school. A student may also apply for financial aid through the Web. Applicants may access a FAFSA form on the World Wide Web address www.fafsa.ed.gov. By completing this form, the student is applying for both federal and state grants. Aid applications from the college will be considered throughout the year to the extent funds are available. There is a distinct advantage to applying as early as possible.

All students applying for financial aid who have attended another postsecondary institution may be required to submit a financial aid transcript from that institution prior to receiving aid from Jefferson Community College. This form must be submitted even if the student did not receive aid from that institution.

AID FROM OUTSIDE SOURCES

Since financial aid is initially awarded without regard to any outside sources of aid other than those the student listed on the application forms, a student's aid may be adjusted if outside awards are received. It is the obligation of each financial aid recipient to report to the

Student Information Center any additional assistance or resources not mentioned in the student's application for aid, such as part-time employment, etc. Also, any significant change in the family's financial circumstances should be reported to the Student Information Center.

PAYMENT OF AID

Upon completion of all requirements for financial aid, the student's semester award will be credited to the student's account to offset tuition and fee charges. If all charges have been paid and the student still has remaining financial aid money, a credit will be reflected at the college bookstore. The student may charge books and supplies throughout the first two weeks of the semester. If a credit balance remains on a student's account after purchasing books and supplies, a refund check will be issued to the student during the eighth week of the semester.

ACADEMIC PROGRESS

The Higher Education Act of 1965, requires institutions of higher education to establish minimum standards of academic progress for students receiving federal financial aid under the Title IV programs. JCC applies these standards to all federal student aid programs, as well as the institutional grant and scholarship programs, i.e. Horizon, Upper Ohio Valley, and Board of Trustees Scholarships. The standards of the Satisfactory Academic Progress policy were established to encourage students to successfully complete courses for which financial aid is received and to progress satisfactorily toward degree completion. Successful completion of a course is defined as receiving one of the following grades: A, B, C, D, or P. The following grades are not considered as successful completion of a course: F, W, I, N, or U. Satisfactory academic progress includes a student's total academic history, including any enrollment periods in which a student did not receive financial aid.

As required by federal regulations, the JCC Satisfactory Academic Progress (hereinafter referred to in this document

as "SAP") policy includes a qualitative (GPA) and quantitative (maximum timeframe) standard.

QUANTITATIVE STANDARDS

1. Any student who has attempted more than 100 semester credit hours and has not completed requirements for a degree or certificate is no longer considered to be making satisfactory progress for purposes of receiving federal financial aid. Attempted hours are credit hours for which the student was charged. This standard will be checked at the end of each academic year.

2. Each semester, a student must also complete a percentage of all credit hours attempted, according to the following schedule, in order to retain eligibility to use federal aid:

Credit Hours Attempted	Credit Hours That Must Be Completed
12	9
9	6
6	3
2-5	2
1	1

QUALITATIVE STANDARDS

1. A student must have attained a cumulative grade point average of 2.0 after attempting 24 semester credit hours at the college. This requirement will be checked after each semester. The GPA will be based on the student's cumulative GPA as reflected on his/her academic transcript.

CHANGE IN MAJOR OR DEGREE

If a student changes majors, he/she is still required to complete the degree or certificate within the maximum time frame.

If a student has already earned one degree at the college, federal financial aid will only apply toward classes in the student's new major. Federal financial aid may not be applied toward classes that will not count as credits toward a second degree.

NOTE: Due to the limited time period between semesters at JCC, it is not always possible to notify students of their financial aid termination before the commencement of the subsequent semester. It is each student's responsibility to determine that



JCC's courtyard is a popular meeting place for students before and after classes.

he/she has met or not met the established standards of academic progress for the retention of his/her financial aid.

REINSTATEMENT OF FINANCIAL AID ELIGIBILITY

A student whose financial aid eligibility has been terminated or whose SAP progress appeal has been denied may conditionally regain his/her financial aid eligibilities by successfully completing enough credit hours at his/her own expense and maintaining all provisions of SAP.

DENIAL OF AID

Aid may be denied for several reasons: no or insufficient demonstrated financial need; lack of institutional funds; failure to make satisfactory progress toward completion of a certificate or degree; or failure to submit required documentation.

If a student feels that not all facts of his/her situation have been considered, he/she has the right to appeal by taking the following steps:

1. File a written petition (with supporting documentation) with the director of

student information by completing the "Financial Aid Satisfactory Academic Progress Appeal Form." The petition should include the reasons of the failure to meet the requirements, how satisfactory progress will be achieved, and the period of extension necessary to achieve progress.

2. If the appeal to the director of student information is denied, the student may file an appeal with the executive vice president for academic and student services by completing a "Student Complaint/Appeals Form."

3. If the above appeal is unsuccessful and the student is still considered to be making unsatisfactory progress, the student cannot receive federal financial aid until the student, on his/her own financial resources, re-establishes satisfactory progress. A student can establish eligibility by successfully completing sufficient credit hours and/or attaining the overall grade point average required, provided the student will attain his or her education goal within the stipulated time period.

Students are permitted to have only one SAP appeal during the course of their educational career at JCC.

AID VERIFICATION

Jefferson Community College requires only students selected for verification to submit a copy of their (or their parents, if applicable) federal income tax return or documentation of nontaxable income. The financial aid office reserves the right to individually select additional student files for verification if conflicting or unclear information is noted. All requested documents must be submitted to the Student Information Center within one month of request or before registration, whichever is earlier. Failure to comply with the request will make the student ineligible to receive financial assistance from the college.

RETENTION OF AID

Financial aid awards are made during the summer for the upcoming academic year based on the assumption that the student will continue in full-time attendance for two consecutive semesters.

The college reserves the right to withdraw or adjust a student's award at any time as a result of unsatisfactory academic progress.

ATTENDANCE POLICY

If you are a financial aid recipient, it is crucial that you establish attendance in each class you are registered for every semester. Essentially, this involves attending class on a regular basis. If you decide to drop or withdraw from a class with a "W," you are still responsible to establish attendance in all classes.

For distance learning courses, attendance is monitored either by tests taken or assignments submitted. An important aspect to remember about distance learning course is, should you decide to drop or withdraw and a test or assignment has not been submitted, **you have not established attendance in that class.** In other words, you must demonstrate some work was done before you withdraw.

Should a situation arise where you do not establish attendance, your financial aid will be reduced down to the amount of credit hours you actually attend. For example, if you register for 12 credits at the beginning of the semester and the Financial Aid Office received attendance information from one instructor stating you never attended a three-credit-hour course, your financial aid will be reduced to 3/4 enrollment. This could leave you in an "owing" situation with the college.

RETURN OF FEDERAL MONEY UPON STUDENT WITHDRAWAL

The Higher Education Amendments of 1998 have substantially changed the way funds paid toward a student's education are handled when a recipient of Title IV funds (Federal Pell Grant, Federal Supplemental Education Opportunities Grant) withdraws, either official or unofficially, from school. The change to the law makes clear that Title IV funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance was awarded. When a student withdraws or ceases attendance, the student may no longer be eligible for the full amount of Title IV funds that the student was originally scheduled to receive.

If a recipient of federal financial aid withdraws from JCC after beginning attendance, the amount of grant assistance earned by the student must be determined. If the amount disbursed to a student was greater than the amount the student earned, unearned funds have to be returned. The amount of Title IV program assistance earned is based on the amount of time the student spent in academic attendance; it has no relationship to the student's incurred institutional charges.

If a student's last date of attendance in an academic-related activity occurs on or after the student completed 60% of the semester, the percentage of earned aid is said to be 100% and neither the college nor the student is required to return any Title IV funding.

When a student attends less than 60% of the term and a return of Title IV funds is due, both JCC and the student have a responsibility for returning unearned funds. The percentage of aid not earned is determined by subtracting the percentage of Title IV aid earned from 100%. JCC is then required to return the lesser of either the amount of Title IV funds that the student did not earn, or the amount of institution charges that the student incurred for the semester multiplied by the percentage of aid that was not earned. The statute then specifies that the student

is required to repay 50% of the unearned Title IV grant funding that JCC is not required to return.

RENEWAL OF AID

Financial aid awards are renewed each year, after proper reapplication, based on continued financial need and academic performance according to the Financial Aid Standards of Progress. Deadline dates for all programs should be observed.

VETERANS' BENEFITS

Benefits are available to qualified veterans as determined by the Veterans Administration.

Scholarship opportunities through the military include: the New G.I. Bill, and the New G.I. Bill for Selected Reserve.

All veterans incur the responsibility to register for classes within their major as defined in this catalog.

Veterans will want to allow six to eight weeks for veterans' benefits processing.

TUITION AND FEES

INSTRUCTIONAL, GENERAL, AND SURCHARGE FEES

All instructional, general, and surcharge fees are based on the number of credit hours and the student's residency status. **Before calculating your fees, students should check at the cashier's window for current fee rates.** The following are the 2004-2005 rates:

Jefferson County
\$81 per credit hour
Other Ohio Residents
\$86 per credit hour

Brooke, Hancock, Ohio, Marshall and Wetzel Counties in West Virginia

\$86 per credit hour

Out of State

\$108 per credit hour

Foreign

\$137 per credit hour

All residents of Ohio and of Brooke, Hancock, Ohio, Marshall, and Wetzel Counties in West Virginia not registered for Selective Service or not filing exemption statement

\$100 per credit hour

SELECTIVE SERVICE REGISTRATION COMPLIANCE

House Bill 845 of the Ohio Revised Code requires that any male Ohio resident or male receiving benefits under Sections 3333.12, 3333.21, 3333.22, 3333.26, 3333.27, 5910.03 and 5910.032 of the ORC, being charged instate tuition by an Ohio public-assisted institution must be registered with or qualify for an exemption to registration of the Selective Service system in accordance with the Military Selective Service Act 62 Stat. 604, U.S.C.A.P.P. 453, as amended. Students not registered with the Selective Service will be charged out-of-state fees (\$108 per

credit hour). This regulation includes West Virginia students attending through the reciprocity (\$86 per credit hour) arrangement.

APPLICATION FEE

A one-time nonrefundable fee is assessed for all full-time and part-time students. The application fee is not refundable when courses are canceled. Foreign application fee is \$100 and the fee for all others is \$20.

DOCUMENTATION FEE

A documentation fee of \$150 is assessed all full- and part-time foreign students each academic semester.

LAB/PARTICIPATION/MATERIALS TECHNOLOGY FEES

Lab/participation/materials/technology fees are charged to students enrolling in most courses to cover the cost of consumable materials, supplies, film badges, liability insurance or other special costs. The fee is listed in the schedule of classes.

AUDITING FEE

The fees for auditing a course are the same as a course taken for credit.

NONCREDIT COURSE FEE

Noncredit course fees vary. Area residents should contact the Department of Workforce and Community Outreach for courses being offered and costs.

GRADUATION FEE

A nonrefundable graduation fee of \$75 must be paid one month before expected date of graduation. This fee includes the cost of cap and gown rental. The purchase of graduation announcements and college ring is optional and will be paid

separately by the student. All students completing the degree or certificate requirements are required to participate in the graduation ceremony. Students must have submitted a graduation candidacy request form and have on file with the college an official copy of their high school transcript or GED score before graduation is permitted.

PROFICIENCY EXAMINATION FEE

A fee of \$10 must accompany each petition for a proficiency examination. This fee is paid at the cashier's window of the Business Office.

FOREIGN STUDENTS

Any person holding a student or other temporary visa will be considered a foreign student and shall not be considered a resident of Jefferson County or the state of Ohio or the USA for purposes of tuition calculation.

Foreign student admission requirements are as follows:

1. Graduation from secondary school;
2. Minimum score of 500 on the Test of English as a Foreign Language (TOEFL);
3. Proof of ability to pay for the planned education; note: all financial aid programs at Jefferson Community College require U.S. citizenship; submit completed U.S. Immigration and Naturalization Service Affidavit of Support (Form I-134);
4. A sponsor in the Steubenville area who will provide housing.

The above requirements must be satisfied at least two months before the beginning of the first semester in which the foreign student wishes to enroll. Once the above requirements are satisfied, an I-20 Application for Visa and a college admission application will be sent to the foreign student.

Foreign student costs:

Application Fee: \$100 submitted with application
Documentation Fee: \$150 per semester
Tuition: \$137 per credit hour
Books: approximately \$450 per year

NON-PAYMENT OF FEES AND OTHER OBLIGATIONS

Official grade reports, transcripts, and diploma will not be issued until the student has cleared all financial obligations with the Business Office or returned all overdue library books. Students with outstanding debts or overdue library books at the college will not be permitted to register for classes until obligations are paid in full.

In addition, under Ohio Law, outstanding balances are turned over to the Office of the Attorney General for collection.

FINES, RETURNED CHECKS, AND CHECK CASHING

Vehicles of any person violating the college parking regulations which prohibits parking in access routes will be towed at the discretion of the college. These routes have been posted.

A fee of \$20 per check will be assessed to any person whose check is returned by the bank for any reason. Returned checks will not be redeposited by the college. Only cash or certified checks will be accepted after a second returned check is received by the college.

An identification card must be presented by the student in order to cash checks at the receptionist/information area. Checks made payable to Jefferson Community College can be cashed for \$10 or less. Only one check per day may be cashed.

STUDENT REFUNDS

Students who are to receive refunds due to the dropping of classes for which they have paid will be mailed their refund checks after the second week of classes for fall and spring semesters. The mailing of refund checks during the summer sessions will vary according to the length of the session.

REFUND OF TUITION

To receive a refund of all or part of the tuition paid for a semester or summer term, a student must have completed the withdrawal process prescribed by the college. A student schedule change form must be signed by the student and submitted to the Student Information Center. The date used in calculating the amount of fees to be refunded will be the date that the official completed student schedule change form is received by the Student Information Center. Refunds will be issued according to the following schedule of refunds.

Students dismissed by Jefferson Community College are not entitled to any refund of tuition and fees. Students are entitled to a full refund if the college cancels the course or does not permit a student to enroll or continue. Fees subject to refund are instructional, general, surcharge, and lab fees.

Refund of fees upon withdrawal from the college is as follows for fall and spring semesters, and Summer Session III:

Tuition Lab Fees

Prior to first calendar day of the semester/ Summer Session III	100%	100%
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First 14 calendar days of the semester/Summer Session III (Saturday and Sunday are counted as calendar days.)	100%	100%
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Refund of fees upon withdrawal from the college is as follows for Summer Sessions I and II:

Tuition Lab Fees

Prior to first calendar day of the summer session	100%	100%
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First seven calendar days of summer session (Saturday and Sunday are counted as calendar days.)	100%	100%
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The first calendar day of a semester or summer session is the day the semester or term starts.

After the refund period, as outlined above, full or partial tuition and fee refunds are not made unless there are extreme extenuating circumstances. The

student must file an appeal form.

Refund of fees for short term/flexibly scheduled courses is as follows:

Prior to the first day of the course, tuition and lab fees are refunded 100%. One hundred percent refund of tuition and fees after the start of the course is determined by the number of weeks in the course.

Length of course in weeks	Calendar Days for 100% Refund
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11 & above	14

DELINQUENT STUDENT ACCOUNTS

Any student registering at the college is reserving a space in those assigned classes and potentially limiting other students from enrolling in the same classes.

Students enrolled in classes must follow the college's withdrawal procedures in the time periods indicated in order to relieve themselves of the responsibility of tuition and fees for that semester.

Nonattendance at classes does not relieve tuition and fee obligations if the student does not complete the college's withdrawal procedures.

As an institution that is supported by state and local tax funding, the college has an obligation to the taxpayers to collect all fees due the college.

According to Ohio Revised Code Section 131.02, state-supported institutions must certify their delinquent debts to the Ohio attorney general for collection.



Students take in some sun while talking over class preparations.

ACADEMIC STANDARDS

DEGREE REQUIREMENTS

The Associate of Arts Degree, Associate of Science Degree, Associate of Applied Science Degree, Associate of Applied Business Degree, or Associate of Technical Study Degree is awarded to those who successfully complete:

1. A two-semester sequence in English or communications skills;
2. A minimum of 30 semester hours of technical courses (determined by the graduate's curriculum) if not in an AA or AS degree program;
3. The remaining required semester hours which include the general and basic-related required courses and appropriate electives;
4. A program curriculum chosen from the list of associate degrees available at Jefferson Community College;
5. A minimum of 18 semester credit hours completed in residence at Jefferson Community College;
6. Participation in the commencement exercises; all graduates are required to attend the May commencement ceremony; requests to be excused from attending must be based on extraordinary circumstances and must be **submitted in writing along with written documentation** regarding the circumstances to the executive vice president for academic and student affairs two weeks before the graduation ceremony; the executive vice president for academic and student affairs will approve or disapprove the request based upon the reason and evidence submitted;
7. A 2.00 overall average at Jefferson Community College and if in a technology obtain a minimum of a "C" in each of the core courses identified; exceptions may be made by the department dean;
8. A student who has attained a cumulative grade point average of 3.50 or higher will receive honors recognition. Students with a cumulative grade point average of 3.50 to 3.749 will be awarded the recognition of cum laude; students

attaining a 3.75 to 3.899 will be recognized with the title magna cum laude; and students achieving a 3.90 or higher will be awarded a degree with summa cum laude.

Several programs offer certificates for graduation. The minimum requirements for certificate completion are found in the catalog description of the particular certificate program and are applicable.

All potential graduates must file an application for the associate degree or certificate through the executive vice president for academic and student affairs' office during the semester preceding the semester in which the program will be completed. The curriculum and degree requirements listed above are consistent with the Ohio Board of Regents' basic standards for granting the associate degree for approved Associate of Arts, Associate of Science and applied technical degrees. An official transcript, GED certificate, or other proof of graduation must be on file with the college before an associate degree or certificate can be awarded.

STUDENT COMPETENCY

Jefferson Community College has developed a process of education which requires a student to be competent in a designated major field before the student can graduate. Competency is defined as the ability to apply the essential skill and knowledge to perform in an occupation. Faculty's objectives are to teach and assist the student in learning and demonstrating this competence. This requires the faculty member to use a number of measurement techniques: performance examinations, on-the-job observations, and evaluations of supervisors and the student. It is recognized that the measurement process is subject to financial, physical, and instrument limitation.

SCHOLASTIC HONESTY AND STUDENT INTEGRITY

Student integrity and scholastic honesty are an integral part of the college's scholastic standard, academic quality, and a foundation for our society.

The college will not tolerate the breach of this integrity through cheating, plagiarism, or other forms of academic dishonesty. Faculty and staff will take precautions to prevent academic dishonesty, but it is also the student's joint responsibility to report known infractions to any college employee. Infractions impact the final grade/CPA of **all** students as well as the reputation of the college and the value of the degree earned. Confirmed violations may result in a failing grade on an assignment(s) or in the course(s).

Repeated incidents of scholastic dishonesty or a flagrant single offense may warrant action beyond a failing grade in the course.

Offenses which may warrant additional disciplinary action including disciplinary probation, professional probation, suspension, or expulsion, include the following:

1. Cheating, plagiarism, or other forms of scholastic dishonesty, including the use, without permission, of tests or other academic material belonging to a member of the college faculty or staff.
2. Furnishing false information to the college with intent to deceive.
3. Forgery, alteration or misuse of college documents, records, or identification cards.
4. Misuse of computer privileges, including unauthorized use of software, an account number, password, program or file. (See Computer Use Policy)

The student may appeal any actions affecting enrollment or grade using the Student Complaints/Appeals Process described in this catalog applies.

MARKING AND CREDIT SYSTEM

The quality of course work at Jefferson Community College is indicated by means of letter grades. Each letter grade, in turn, carries "quality points" which are used in computing the student's "cumulative point average (CPA)." Academic achievement which reflects competency will be recorded in letter grades at the end of each semester or summer term for all course work for which credit is granted. The credit hours attempted and quality points attained will enter into the computation of the student's cumulative point average.

The marking system in tabular form is as follows:

	Quality Points Per Semester Hour
A - Superior Quality	4.00
B - High Quality	3.00
C - Average	2.00
D - Below Average	1.00
F - Failing	0.00

I - The grade of "Incomplete" (I) may be given if a student, for reasons beyond his/her control, is unable to complete the work of a course by the end of the enrollment semester.

The student **must** arrange with the instructor to complete the requirements of each incomplete course within six weeks of the end of the current semester. If the student does not fulfill the course requirements as arranged, the incomplete grade "I" will be automatically converted to an "F" on the student's transcript at the end of the six-week period.

W - The grade of "Withdrawal" (W) is given after the second week of each regular semester or first week of Summer Sessions I, II and III. A student submits a withdrawal request form to the Student Information Center on or before the published withdrawal date. A "W" is recorded for the grade on the student's permanent record and is not computed in the CPA.

P - The grade of "Pass" (P) is given for a passing grade in a credit, non-degree course or a credit lab. Credit hours are recorded, but this grade is not included in cumulative point average computation. Credits are added to cumulative credits achieved. In addition, the grade of "P" is used to designate all credit accepted as transfer from another institution.

N - The grade of "Non-Pass" (N) is given for a non-passing grade in credit,

non-degree courses or a credit lab and is not computed in cumulative point averages.

U - The grade of "Audit" (U) is given for credit courses in which the student elects to be an auditor. This grade is not computed in the cumulative point average.

CATALOG-IN-FORCE

1. Requirements to earn a degree or certificate are based on the Catalog-In-Force at the time of the student's first term of study in his/her major.

2. First term of study is defined as that semester in which a student:

A. Has satisfied all prerequisite course work and other preconditions;

B. Has been fully accepted into a degree or certification; and

C. Has officially declared a major and registered for courses in the prescribed curriculum or major.

3. Credits for technical courses that have been earned more than five years prior to graduation will be subject to individual evaluation by the department dean and may, in some cases, need to be repeated.

4. Students who have been absent from the college for more than one year or who have been suspended and readmitted **must** follow the Catalog-In-Force requirements at time of their return. Additional requirements in specific programs may be applicable.

5. Exceptions to the above may be necessary when changes in certification or licensure standards mandate changes in academic requirements or in college programs. Additionally, courses in some disciplines occasionally may be deleted, changed or developed; therefore, the college may require substitutions to reflect these changes.

6. Final decisions regarding the Catalog-In-Force policy will be the responsibility of the specific department dean.

ATTENDANCE POLICY

Since the mission of the college is to provide training and education that enables students to transfer to other education institutions or to secure immediate employment, the development of effective work attitudes is as important as

the acquisition of technical skills. In industry, there are many examples of personnel policies which define guidelines for tardiness and absenteeism with resulting disciplinary action for those employees habitually late or absent. There are also many learning objectives in a college course which can be accomplished only when the student is present and participating in class discussion, exercises, simulations, and laboratory activities. Therefore, in the effort to encourage and develop responsible work habits and to assure maximum benefit from its course offerings, each academic program has an established attendance policy. Individual instructors are responsible for providing the details of the policy in writing during the first week of class.

Regular and punctual attendance may constitute one component of the student's final grade in a course. The makeup of missed class/course material is **solely** the responsibility of the student

CUMULATIVE POINT AVERAGE

A student's cumulative point average (CPA) is the quotient obtained by dividing the total number of quality points earned by the total number of semester credit hours attempted. The CPA is computed at the end of each semester and is reported with the grades to the student. Credits achieved are not used in grade point average calculation.

GRADE REPORTS

Grade reports are issued to students at the end of the semester and recorded on the student's transcript. Any student with overdue library books or unpaid fees at the Business Office will not receive a grade report.

A student whose performance is unsatisfactory will be sent a deficiency notice near mid-semester. It is **required** that students receiving deficiency notices make an immediate appointment with their advisor and/or the instructor of the course in which the student is deficient. The student must assume the full responsibility for making conference arrangements.

ACADEMIC HONORS

An academic honors list will be prepared and published each semester. Students shall be named for such recognition according to the following criteria:

A student who has achieved a minimum of 12 credit hours during the semester and has earned a grade point average of 3.5 or higher shall have obtained outstanding academic achievement warranting recognition on the Academic Honors List. Students named on the Academic Honors List may be eligible to participate in Jefferson Community College's Alpha Omicron Nu Chapter of the Phi Theta Kappa honor society.

ACADEMIC RECOGNITION -- LESS THAN FULL-TIME STUDENTS

Any student, who attempts six or more semester credit hours but less than 12 semester credit hours in any single academic semester, is eligible to receive a letter of academic recognition if a grade point average of 3.50 or greater is achieved during that academic semester. The recognition offers the student, enrolled for less than twelve semester credit hours and ineligible to receive normal academic honors, a form of academic recognition. The letter does not make the student eligible to participate in the college's Alpha Omicron Nu Chapter of Phi Theta Kappa, and it cannot be used to place the student on the academic honors list. Three levels of recognition have been established. A semester GPA of 3.50-3.75 will receive a letter of excellence; a GPA of 3.76-3.90 an outstanding letter of recognition; and a GPA of 3.91 or higher will receive a letter of exemplary academic recognition.

Any student request for correction and/or appeal concerning the academic recognition program will be processed through the normal college complaints/appeals process, see catalog listings.

REPEATING COURSES

A student may repeat a course in which a passing or failing grade has been received. In any case, the last grade

earned will be counted in computing the grade point average at Jefferson Community College.

The student must secure permission from the department dean to repeat a course more than once.

MAXIMUM LOAD

The course load of a student may not exceed 18 semester credit hours of course work in a regular semester without the approval of the department dean or the executive vice president for academic and student affairs. A student may not ordinarily enroll in more than 21 semester credit hours of course work in a regular semester. Permissible exceptions to the 18-credit hour rule include

1. A prescribed curriculum requires the student to carry more than 18 credit hours in a semester;
2. A cumulative average for four years of work in high school is of 3.00 quality or higher if the student is beginning college-level work;
3. A cumulative average for course work taken at JCC or at another recognized college or university is of 3.00 quality or higher.

During any summer term the course load of a full-time student may not exceed six semester hours; the maximum course load during the summer may not exceed nine hours, except as stated in 1.

INDEPENDENT STUDY

As a general rule, the college discourages independent study arrangements of courses normally offered through its regular academic schedule. Exceptions will be considered only when the following conditions exist:

1. The course in question lacks sufficient enrollment to be held, and;
2. The course in question is necessary to maintain appropriate sequencing, and/or;
3. The course in question is required for graduation and the student is in his/her final semester, and;
4. The student is a regular, degree-seeking student and has been continuously enrolled at JCC.

Independent study courses must follow the established course syllabus, use the approved textbook and generally cover the same content and assignments established for the course. The courses are to be taught by full-time faculty within the program (if one is available). Independent study courses will not generally be allowed during the summer term. Independent study courses must be approved by the program director, department dean and the executive vice president for academic and student affairs.

PROBATIONARY AND ACADEMIC SUSPENSION POLICY

The extent to which a student's academic record is below a 2.0 average determines whether the student will be placed on probation, continued on probation, or suspended from the college. Each departmental academic standards committee will determine whether a student is subject to academic probation and associated credit hour limitations, or suspension under the following criteria:

1. A student who has attempted fewer than 30 semester hours is placed on probation when the cumulative average falls below 1.6. The student who has attempted more than 30 semester hours is placed on probation when the cumulative average falls below 2.0.
2. A student will remain on probation until the cumulative average is increased to 2.0 or higher.
3. A student who fails any **required** core or technical subject identified by the program will be placed on probation regardless of the cumulative average. This probationary status will continue until the failed course is repeated and passed. (For a list of required core and technical courses, refer to individual departments and programs elsewhere in this catalog.)
4. A student will be suspended from the college for one or more semesters when any one of the following occur:
 - a) Any student with a cumulative average of 1.0 or less (including freshmen);
 - b) Any student with up to 15 accumulated hours and a cumulative average of 1.3 or lower;

- c) Any student with more than 15 accumulated hours and a cumulative average of 1.5 or lower;
 - d) Any student who has been on probation for two or more regular semesters (excluding summer.)
 - e) Any student who has been suspended for a second time within a five-year period will be suspended for a minimum of 2 calendar years.
5. Students enrolled in selected health programs who fail a **required** technical or **sequential** subject **will be dismissed** from the program.

6. A student placed on academic probation will be informed of this fact and the related load limitation after grade reports have been issued via a letter from the department dean. A copy of this letter will also be filed in the student's permanent record and with the student's advisor.

A student's improved performance subsequent to academic probation or suspension will be considered in further academic decisions.

Counseling services at Jefferson Community College serve the primary function of helping students overcome barriers which block them from pursuing an educational or occupational goal. These barriers may take the form of personal concerns, an inappropriate choice of a major course of study, poor study skills, etc. Testing, counselor interviews, and materials are available to help a student overcome these barriers.

ADVISING

Advisors help students reach their academic goals by guiding the students in class selection and scheduling. Students who have not achieved 12 semester credit hours are scheduled by a HOST Center advisor. Those students achieving more than 12 semester hours are to be scheduled by advisors in their major course of study. Students should initiate and maintain contact with their advisors through graduation. Deans assign advisors to every student, and the advisors' lists are maintained by the deans.

UNDECIDED STUDENTS

Students who set career goals have been found to reach these goals more often than students who do not set goals. Undecided students are strongly encouraged to meet with the counseling staff to decide upon a major as soon as possible.

ORIENTATION

All new students are either required or recommended to attend an orientation program. This program is conducted by the student affairs staff in conjunction with the faculty to familiarize students with student activities, library services, adjustments to college life, programs of study, study skills, and other topics.

TUTORING

The Learning Skills Lab coordinates a peer tutoring program that provides assistance to JCC students requiring help in their courses. Students should request

tutoring assistance as soon as the need arises. A fee of \$2 per hour applies for peer tutoring.

The Learning Skills Lab also provides help sessions for chemistry, mathematics, and anatomy/biology courses. These help sessions are conducted by JCC instructors and are free for JCC students. Information about the help sessions can be obtained from the Learning Skills Lab.

DISABILITIES SERVICES

Jefferson Community College is committed to providing reasonable accommodations for students with disabilities within the classroom. Reasonable accommodations may include alternative methods of testing and/or showing mastery of required material, modification of time allowances for testing and/or required projects, note-takers, interpreters, and/or approved assistance equipment, access to lecture notes and materials such as overheads. Effective and reasonable accommodation in the classroom does not include fundamental alteration of the curriculum, classroom standards, or length of class. Accommodations will be made on a case-by-case basis by the college.

Students are responsible for notifying the college regarding any disabilities for which they may need special services. Students are provided a Health Information Form at the beginning of their first semester. Forms also may be obtained at the Admissions Office or the medical records specialist's office. This form is

returned to the Admissions Office or the medical records specialist's office. At this time, the student also should make arrangements to meet with the director of the Learning Skills Lab. The director will assist students in resolving immediate issues, provide assistance with academic concerns, and attempt to answer student questions. Pertinent documentation from a medical professional, psychiatrist, or psychologist must be provided to the director. Students also must complete an Authorization of Release Form, an Academic Information Form, an Eligibility Status Form, and a Student Checklist Form so that efforts directed toward making the appropriate accommodations can be initiated.

COLLEGE ATTENDANCE AND EMPLOYMENT

Many students find it necessary to work while attending college. With careful and realistic planning, work and study may be combined successfully. Each semester hour in which the student is enrolled often requires hours of study/preparation outside class; therefore, the following guide is strongly recommended.

The faculty recommends students employed full-time (40 or more hours per week) should attempt to carry no more than two courses (six to eight semester hours). Those employed part-time should carry a course load proportionate to their hours of employment.

STUDENT REGULATIONS

STUDENT COMPLAINTS/ APPEALS PROCESS

The college complaints/appeals process is available to any student who has concerns about college policies, who believes that college policies have not been properly applied to them, who have complaints about the actions or omissions of college employees, or who desire to request that an exception be made in their particular case. This process is designed to assist in resolving conflicts informally and where applicable, to provide students with due process. Matters which can be pursued through this process include, but are not limited to, equal opportunity, Americans with Disabilities Act, sexual harassment, accommodations, probation and suspension, acceptance of transfer credits, financial aid procedures, social penalties, refunds, and grading practices (grade appeals will only be considered within 12 months of when the grade was earned).

The complaints/appeals process is composed of informal and formal steps. It is the goal of the policy to resolve problems informally whenever possible. For this reason, students are advised to first discuss the complaint/appeal with the faculty or staff member with whom there is a disagreement or with his/her immediate supervisor before filing a formal complaint/appeal. In the case of a sexual harassment allegation, the student is not required to discuss the allegation informally with the alleged perpetrator. The college reserves the right to require the student to attempt to resolve the complaint/appeal in an informal manner before accepting and processing a formal appeal. Where applicable, the college reserves the right to require appropriate documentation before formally resolving an appeal.

The college will consider formal complaints as only those received in writing, signed by the complainant, and mailed or delivered to the college president or a vice president in the manner outlined in this policy.

To initiate the formal appeal process, the student must secure the Student Complaints/Appeals Form from any academic and student affairs office, complete the form fully, attach any

relevant documentation, sign and date the form, and submit this material to the executive vice president for academic and student affairs' office within ten (10) calendar days from the date the student should have been aware of the situation giving rise to the appeal. The executive vice president for academic and student affairs will route the appeal form to the appropriate department administrator, who will review the information and if appropriate, conduct an investigation, including meeting with the student and others if necessary, and render a decision in writing to the student within ten (10) calendar days. The student may appeal the decision of the department administrator to the college president within ten (10) calendar days of the receipt of the response by obtaining, completing and submitting to the president's office an Appeal to President Form, which is available in the executive vice president for academic and student affairs' office. For the purposes of this policy, the date of receipt of the department administrator's response by the student will be the date the response was mailed to the student's last known address, plus two days. The decision of the president or his designee shall be final. The president may appoint a designee to review/render a decision on the appeal if the president is unavailable to personally consider the matter.

The college may be required to report information regarding complaints received to its accreditation agencies or various units of government. When this information is reported, the college will delete any personally identifying information unless a specific law or government regulation requires its inclusion.

STUDENT REGULATIONS COMMITTEE

Admissions to Jefferson Community College carries with it obligations in regard to conduct both on campus and during the course of recognized and authorized off-campus activities. Students are expected to act in such a manner as to be a credit to both themselves and to Jefferson Community College. Students

are answerable to the laws governing the community as well as college regulations.

In order to provide the college community with a means for investigating incidents of social misconduct, the college has established the Student Regulations Committee.

PURPOSES

Specific committee purposes are

1. To hear cases of social misconduct and recommend disciplinary measures to be applied in cases involving infraction of laws or regulations
2. To investigate and make recommendations regarding situations where an infraction of laws or regulations may exist but in which no person has been formally charged

The president and executive vice president for academic and student affairs reserve the option of referring or not referring specific cases and problems to this committee before imposing social penalties on a student(s). In those situations in which the president or executive vice president for academic and student affairs imposes penalties without consultation with this committee, the student(s) may request that the committee review the facts of the case and make a recommendation. The president of the college reserves the right to veto appeals and recommendations from this committee.

MEMBERSHIP

Membership of the committee shall consist of: the executive vice president for academic and student affairs (ex-officio-chairperson), the staff advisor to the Student Senate, a Student Information Center staff member, one faculty member at large appointed by the executive vice president for academic and student affairs, and the members of the Student Senate Executive Committee representing Business Technologies, Engineering Technologies/Undecided, and Health/Public Services Technologies.

COMPUTER USE POLICY

Rules and policies regarding use of the computer facilities at Jefferson Commu-

nity College are listed below. Adherence to the following responsibilities and liabilities are designed to protect the college's computer equipment. This will enable everyone to be able to use the computers more effectively.

1. The computers are to be used only for the development of class work assigned by an instructor of a credit or noncredit class/laboratory, or in association with the Learning Skills Lab.
2. All students using the computer labs must be registered in a credit class, a current continuing education course or signed in with the Learning Skills Lab.
3. Unauthorized use (commercial applications for personal reimbursement and using another user's password or account) or misuse (using programs or files not related to an authorized application, tampering with institutional data or programs, tampering with the operating system and/or related files, and sending or printing obscene or nearly obscene messages) are prohibited. Such usage may result in academic suspension or expulsion from computer-related courses involving computer usage or from Jefferson Community College, depending on severity or if a previous official warning was given.
4. The Department of Technology Services will take no responsibility for information altered or destroyed through negligence on the part of the user.

CHILDREN IN CLASS

In order to provide an environment conducive to learning for all students and for safety reasons, the college prohibits parents or guardians from bringing children to class with them. Because it is recognized that many parents have regular or emergency child care problems, an on-campus Preschool is operated. All parents are encouraged to use this service which can accommodate children from 18 months to 12 years of age. Preregistration of children is suggested, however, children can be placed in the Preschool on an emergency basis at any time. To arrange for regular or emergency service, students should contact the Preschool head teacher. Finally, the college maintains a working relationship with most area day care facilities. The placement office should be contacted for a referral.

AUTO SAFETY AND PARKING RESTRICTIONS

Standard regulations of driving and safety are expected to be observed by all drivers on campus. The Security Office issues parking stickers to all students free of charge. Persons using the parking facilities should register their vehicles and display the registration sticker in the vehicle's rear window. Tickets are given and fines levied when regulations governing the parking facilities are violated.

Parking is not allowed in the main driveway surrounding the college. This is designated as a fire lane, and illegally parked vehicles may be ticketed by the Steubenville Police Department and/or towed at the owner's expense. Security personnel may place "boots" on illegally parked vehicles.

Using more than one parking space, parking on the grass, parking on pedestrian walkways and parking in spaces designated for handicapped individuals are strictly prohibited. The speed limit is 20 mph on campus. Stop signs are installed at all crosswalks for the safety of pedestrians. All vehicles must yield to pedestrians.

SMOKING ON CAMPUS

The use of tobacco products is prohibited inside the college's facilities. All use of tobacco is restricted to outside the building.

CLASS CANCELLATION--WEATHER

Classes will be held on a regular basis. Should the cancellation of classes be necessary as a result of an emergency or severe weather, especially during the winter months involving a heavy accumulation of snow/ice overnight, announcements will be made by local radio and television stations. The following radio stations will be notified: WSTV 1340 AM, and WRKY 103 FM in Steubenville; WCDK 106.3 FM in Wintersville; WEIR 1430 AM in Weirton; WOHI 1490 AM in East Liverpool; WEGW 107.5 FM, WWVA 1170 AM, WBBB 1600 AM, WEEL 96 FM, WOVK 98.7 FM, and WKWK 1400 AM, 97 FM in Wheeling; WOMP 100 FM in Bellaire; and television stations WTOV Channel 9 in

Steubenville and WTRF Channel 7 in Wheeling.

Cancellations also are listed on the college's website at www.jcc.edu. Click on services then click on cancellations.

Jefferson Community College's students are expected to make their own decisions regarding travel on snow-covered or icy highways. The college does not follow the same procedures as the local secondary school systems, which are responsible for busing students to school. However, the college will attempt to make reasonable and timely decisions regarding delays (start times) and cancellations based on conditions which exist at the time.

When an announcement is made on radio/TV that the college start time is delayed due to weather or other on-campus emergency, classes scheduled during the time of the "delay" will be canceled. The starting time announced (end of the delay) will be for classes normally starting or in session at that time. If a class would have been in session at the new start time, it will resume at the new time (e.g., a 9-11 a.m. class will resume at 10 a.m. if the delay indicates classes will start at 10 a.m.). All classes scheduled to be in session **will** resume at the new start time. Off-campus classes and clinical education will be conducted unless notified by the instructor, the department secretary, or a specific program's "snowball" phone chain.

Students should plan ahead for days when the college is open and the public schools are closed. This may include and require child care and understandings in advance with instructors regarding the consequences of absences under such circumstances.

LOST AND FOUND

Found articles are to be given to the person on duty at the information-visitors counter in the administrative wing or to the security person on duty. Individuals losing articles should check with the security person on duty periodically to see if the missing article has been turned into the college.

Further student polices found
beginning on page 197

STUDENT SERVICES

PLACEMENT

One of the student services at Jefferson Community College is placement assistance. This service is offered to all students and alumni of the college and is designed to assist in the quest for part-time and full-time employment. An annual Job Career Day also is held on campus, and potential graduates and students are encouraged to participate.

Placement office services are especially important to students seeking full-time employment upon graduation. Placement registration may be made at any time by a JCC student, by completing the forms in the placement office. Graduating students are encouraged to register during the first semester of the year they intend to graduate.

Job openings and information about placement services are updated regularly on the college's web site www.jcc.edu.

ALUMNI ASSOCIATION

The Alumni Association of Jefferson Community College is headed by the Alumni Council and is service-oriented.

Association membership is on an annual basis and offers many advantages. All alumni are entitled to lifetime placement services. The *Alumni Messenger* is printed to provide current and updated information about the Jefferson Community College family and alumni.

Alumni may e-mail and keep JCC up to date on employment status, promotions, educational accomplishments, marriages, birth announcements, and other newsworthy events. Alumni are urged to stay in touch with the college by e-mailing alumninews@jcc.edu.

The Alumni Association always is seeking members to assist in raising money for JCC scholarships and to provide "in-kind" service to the community. All alumni are encouraged to join the association and be active in assisting JCC students in accomplishing their goals.

STUDENT MESSAGES

The staff at Jefferson Community College has many duties to perform so only emergency telephone messages will

be delivered directly to the student. An emergency is defined as any unanticipated situation involving death, illness, health, or safety which requires the immediate attention of the student. Non-emergency messages will be posted on the electronic message board outside the student lounge.

KEYS PROGRAM

The Keeping Education in Your Sight (KEYS) program is provided by the Ohio Appalachian Center for Higher Education at JCC to help participants 14 and older to overcome fears, set and achieve goals, and become aware of additional career alternatives. Seminars are conducted with students and parents regarding financial aid and career awareness in the areas of engineering, business and health technologies. This occurs both on and off campus. KEYS sponsors an annual College Application Fair.

The Education Opportunity Center (EOC) is a federal Trio program providing similar career development services to individuals 18 and older.

REFERENCES FOR QUESTIONS

Academic Advising HOST Center or Faculty Advisor
 Academic Appeals Dean
 Academic Appointments Appropriate Academic Secretary
 Academic Information Dean
 Academic Probation Department Dean Faculty Advisor
 Regulations for Academic Probation
 Admissions Admissions
 Billing/Student Refunds Cashier
 Business/Industrial Training Department of
 Workforce and Community Outreach
 Class Schedule Distribution Admissions
 Continuing Education/Employee Training Department of
 Workforce and Community Outreach
 Course Grade Instructor
 Financial Aid Student Information
 Graduation Requirements Faculty Advisor
 Guidance & Counseling HOST Center
 Health Insurance Student Affairs
 I.D. Cards Student Information

Liability Insurance Business Office
 Locker Security
 Lost and Found Receptionist
 Noncredit Courses & CEUs Department of
 Workforce and Community Outreach
 Parking Sticker Security
 Personal Counseling HOST Center
 Placement Service Placement and Alumni Office
 Police Academy Department of
 Workforce and Community Outreach
 Registration Student Information
 Seminars, Conferences and Department of
 Small Business Assistance. Workforce and Community Outreach
 Student Activities Coordinator for Student Groups
 Student Groups Coordinator for Student Groups
 Transfer/Articulation HOST Center
 Tutoring Learning Skills Lab
 Withdrawal From College Student Information

STUDENT ACTIVITIES

STUDENT CLUBS AND ORGANIZATIONS

The formation of student groups on campus is encouraged, provided these groups serve a positive function and do not duplicate the functions of the Student Senate or other groups.

To receive official sanction, a club must have approval of its activities by the executive vice president for academic and student affairs and be chartered by the Student Senate. Information about the procedures for starting clubs is available from the executive vice president for academic and student affairs.

Clubs may sponsor major social activities, special engagements, and, in some instances, provide financial aid through scholarships. Requests for use of college facilities by clubs and organizations should be directed to the student group coordinator.

STUDENT ADVISORY COMMITTEE

The Student Advisory Committee is another formal channel for student participation in institutional policy determination. The function of this group is to provide the college with feedback

through meetings with the college president or vice presidents. This committee consists of the members of the Student Senate Executive Committee.

STUDENT SENATE

The Student Senate's major purpose is to assist the college in the development and operation of student nonacademic activities and to provide student input to the administration. This is a central body through which all student organizations are coordinated. Clubs and other student groups on campus must be chartered by the Student Senate.

Student Senate officers are elected. The Student Senate is composed of eligible representatives from the various curricular divisions plus some delegates at large. The constitution and information about the Student Senate are available from the coordinator of student groups who is the advisor to the Student Senate.

Student Senate oversees the Odyssey of the Mind (OM) Group, and the Student Activities Group (SAG), which is comprised of three main committees: Cultural Arts Committee, Entertainment Committee, and Sports Committee. *These student committees are not necessarily made*

up of student club officers and are open to all students who wish to participate.

CULTURAL ARTS COMMITTEE

The Cultural Arts Committee membership includes student leaders who are primarily interested in helping to organize cultural events on campus. Some of the activities of this group during a school year will include hosting a Shakespeare play, organizing programs for Black History Month and hosting a jazz concert. *Students on this committee will help the organizers select, attend and host various cultural programs.*

ENTERTAINMENT COMMITTEE

Student leaders who are primarily interested in organizing campus entertainment comprise the Entertainment Committee. The group would assist in hosting professional entertainment; such as, comedians, magicians and musical entertainment that will appear on campus. *Students from this committee will help select and promote the type of entertainment that will appear on campus.*

SPORTS COMMITTEE

The Sports Committee is made up of students who are interested in organizing and participating in student sport



JCC's flag football team takes on another college team on a sunny afternoon.

activities, such as, flag football, soccer, basketball, golf, softball, and volleyball. Participation in these intramural sports is open to JCC students only. However, once the college's league play is completed, JCC teams have been sent to The Ohio State University in Columbus to participate in intercollegiate tournaments with other colleges. In addition to league play intercollegiately in basketball and flag football with other community colleges and university branches, JCC teams play regular season games with Franciscan University of Steubenville and branches of Ohio University Eastern, Kent State University and Akron-Wayne College. *Students from this committee help organize and set rules and regulations for the particular sport of their choice.*

ASSOCIATION OF INFORMATION TECHNOLOGY PROFESSIONALS

The Association of Information Technology Professionals is a nationally chartered organization whose primary intent is to further the knowledge of data processing students in the field of information management. The chapter participates in many varied activities, including symposiums, lectures, tours of data processing facilities, and programming contests. Membership provides professional contacts and future career enhancement, and is open to all students pursuing a computer information degree or certificate.

INSTRUMENTATION, SYSTEMS, & AUTOMATION SOCIETY

ISA, the Instrumentation, Systems, and Automation Society, is a nonprofit organization dedicated to fostering technical, scientific, and educational advancement in the theory, design, manufacture, and use of instruments, computers, and measurement systems. JCC's student chapter was chartered on June 15, 1995, and is affiliated with the senior ISA chapter in Pittsburgh. ISA student membership provides increased career opportunities and broadens knowledge to the field of measurement and control. Activities include meetings, industry tours, and lectures.

Students also may obtain membership in the American Drafting and Design Association and the American Welding Society.

COLLEGIATE SECRETARIES INTERNATIONAL

Collegiate Secretaries International, an active organization on campus, is open to all secretarial students and is instrumental in helping them prepare for the positions of responsibility they will be holding as secretaries.

PHI THETA KAPPA

Phi Theta Kappa is an international honor society, the purpose of which is to promote scholarship, leadership, fellowship and service among qualified students. To join, a student must maintain a GPA of 3.55 or higher and accumulate at least 16 credit hours toward an associate degree. Membership is by invitation only and is open to both men and women. The Alpha Omicron Nu Chapter was chartered in May 1989 at JCC.

FINE ARTS CLUB

The Fine Arts Club was established to provide creative opportunities for students outside the classroom; to help promote culturally diverse events through the JCC Fine Arts/Cultural Entertainment Series; and to support events at regional arts organizations and schools so that together respect is encouraged for the fine arts.

In recognition of this commitment, club members participate in and host on-campus activities such as dramatic performances of literature, guest music groups, and a community art show.

Members also help the school's Cultural Arts Committee plan and promote bus trips to regional arts activities. Past trips have included the Cincinnati Shakespeare Festival, Ohio Renaissance Festival, Pittsburgh Public Theatre, Byham Theatre, and Pittsburgh Opera. Students also have performed in and provided backstage assistance in a local production of Puccini's opera, "La Boheme."

All JCC students are welcome to join the club and to participate at any level they choose. Bus trips are open to the public and friends and families of students are encouraged to participate in any of the events.

WRITER'S CLUB

The Writer's Club reflects the talents of its members with the biannual publication of *Hilltop, Ink.*, the JCC literary magazine, as well as its fledgling monthly student newsletter. Students also meet regularly to discuss their own writing interest in a community of peers. Not just for journalism, communications, and English majors, this club boasts a membership that includes writers from diverse backgrounds and academic interests.

SADD

Students Against Driving Drunk (SADD) is a chapter of the national organization. Its goals are to eliminate drunk driving, to save lives, to alert students about the dangers of drinking and driving, to eliminate the illegal use of drugs, to conduct community alcohol awareness programs, and to organize peer counseling programs to help students who may have concerns about alcohol.

SOCIETY OF AFRICAN AMERICAN CULTURE

The Society of African American Culture, formerly the Black Student Union, opens its membership to any student without regard to race, sex, religion, or national origin. The purpose is to promote African American educational, civic, and social activities, and to promote the general awareness of African/American minority cultures and achievements.

INTRAMURAL AND CLUB PROGRAMS/STUDENT ACTIVITIES

Interested students at Jefferson Community College conduct informal programs of athletic competition in softball, basketball, flag football, soccer, golf, and volleyball. During the year, cultural, recreational, family and public interest activities also are offered. Suggestions for intramural programs should be directed to the Student Senate.

Student teams take part in intercollegiate tournaments in Ohio.

OTHER AFFILIATIONS

From time to time the college will assist students with membership to national and international organizations; such as, American Welding Association, Collegiate Secretaries International, International Society for Measurement and Control, Society of African American Culture and Society for the Advancement of Management.

NEWSBREAK

Newsbreak is a weekly student newsletter containing announcements and articles of interest to the college community. Information is given to the coordinator of student activities who prepares and distributes the **Newsbreak**.

FACILITIES

LIBRARY

The bi-level library is located in the center of the college's main floor and features an open-stack arrangement, with adjoining work areas designed to facilitate study, research, and reading.

The library is open from 8 a.m. to 9 p.m., Monday through Thursday and until 4 p.m., Friday, when classes are in session. Check with the library for Saturday hours.

The library is available for study and research to students, staff, and members of the public. Library materials are circulated to persons possessing a current, valid, unexpired library barcode. Books and other items may be circulated for a time period of overnight to two weeks, depending on the publication. Interlibrary loan services are available.

A multimedia lab allows students to scan and edit digital images and video clips. Software is available for creating webpages. Any student may use the lab, but library staff members request that you learn how to use the equipment and software first. Students may contact any library staff member or library lab attendant to set up an appointment to learn how to use the equipment. The lab also is intended for group work with four workstations that each accommodate five persons with one PC at each workstation.

Equipment for using various audiovisual materials is available. Coin-operated copy machines, microfilm

readers, and reader-printers are available. For research purposes, back issues of periodicals and newspapers are on file in hard copy, in microfilm, and online. Automated library services are now available for the use of all library patrons. These services include an online card catalog for the local collection, online borrowing from OhioLINK, and full-text retrieval of many periodical articles. OhioLINK is a statewide computer network that provides access to the library collections of all state-related colleges and universities. OhioLINK also provides access to over 100 online research databases. Its services provide

access to the same resources for the community college student as those enjoyed by students at the largest state institutions.

Patrons may send FAX messages from the library by paying a cost recovery fee in the Business Office before requesting the FAX service. Incoming student FAXes may be sent to 614-264-1338.

Students not returning materials will have their grades held, have their transcripts held, may be refused re-registration, and may not be allowed to graduate. Patrons must pay for lost and/or damaged items.



Computer classes are an intricate part of most academic programs.

LEARNING SKILLS LABORATORY

The Learning Skills Lab coordinates the General Math, General English, and General Reading courses offered at Jefferson Community College. These courses are designed to assist students in improving their basic skills in each area. A complete explanation of each course is given in the course description section of this catalog.

In addition, the Learning Skills Lab offers a writing lab free to all JCC students wishing to improve their writing. Those individuals needing assistance with writing papers, proofreading, research, documentation, and basic word processing are encouraged to take advantage of this service. For further information, contact the Learning Skills Lab.

Tutoring services for JCC students are also available through the Learning Skills Lab. A complete explanation of the tutoring services available is given in the Counseling section of this catalog.

Day hours are available. Evening hours are available by appointment.

BOOKSTORE

Textbooks and supplies for each course may be purchased in the bookstore, which is located in the south wing. Clothing, assorted supplies, gift items, etc., also are stocked at very reasonable prices. The bookstore has special sales throughout the year and features holiday items.

Bookstore hours are posted for fall and spring semesters and the summer session. The textbook price list will be posted across the hall from the bookstore prior to each semester. Used books are sold when available. Book buy-backs are held by an outside book company at the end of each semester. Exchanges or refund(s) of textbooks will be made only during the allotted return period of the semester for which it was purchased. The sales receipt or financial aid charge slip must accompany a purchase return. Only unused, unmarked, and unwrapped (if wrapped when purchased) books will be accepted for exchange or refund. For purchases, the bookstore will accept cash, VISA, MasterCard, Discover, or a personal check for the purchase amount only.

A bulletin board, located across from the bookstore, is provided so students may post notices about used books for sale.

Gift certificates are available for purchase.

COMPUTER LABORATORIES

The college provides open access computer laboratories, on a space available basis (classes and equipment) for the use of all registered students to do course work. Students are encouraged to use computer labs for all course work. A portion of materials fees paid for each course gives each student full access to computer labs when classes are not in session (see posted schedules) and equipment is available. Students enrolled with the Learning Skills Laboratory and students taking a continuing education course also may use the computer labs.

FACILITIES FOR STUDENTS WITH SPECIAL NEEDS

The Jefferson Community College campus is designed to facilitate accessibility by students with disabilities and makes other reasonable accommodations consistent with the Americans with Disabilities Act. Entry ramps, automatic doors, an elevator, designated parking, and accessible restrooms are among the specific design features. In addition, the Learning Skills Lab employs or makes available, through referral to other community resources, professionals trained in helping individuals with disabilities and houses specialized equipment to assist individuals with visual handicaps. Labs in the computer wing have several specially equipped computer desks.

Additional information about these services is available from the college's counselors.

PRESCHOOL

To assist students in locating care for their children, the college operates a licensed Preschool for children age 18 months to 6 years. School-aged children also can attend the Preschool during the summer or when local schools are canceled. The service operates from 7:30 a.m. to 5 p.m. Monday through Friday. Parents are required to preregister children.

A nominal hourly fee is charged. Parents who qualify economically may receive financial aid to pay for this service. Students should contact the Preschool for information.

Phonics, pre-kindergarten math, reading readiness exercises, art, activities, and social skill development are incorporated into weekly themes. This program is conducted in a warm and loving atmosphere.

LOCKERS

Lockers are issued by the security office on a first come, first served basis during the fall registration. The locker that is issued remains the individual's throughout the academic year (August-May). Lockers are to be cleaned and vacated during the second week of May. No personal locks may be used on the lockers. No fee is charged for locker use. Jefferson Community College retains the right to inspect the lockers at any time. The security office issues lockers.

SNACK BAR, HOT FOOD SERVICE, AND LOUNGES

Hot breakfast and lunch service is available at the campus kitchen, which is located in the student lounge. This service is offered Monday-Friday. Coin-operated food machines dispensing sandwiches, snacks, hot soup, candy, and a variety of soft drinks are provided for the convenience of the students in the lounge. Lounge seating and televisions also are available.

Live entertainment is featured occasionally.

EMERGENCY PHONES

Emergency phones are located strategically throughout the building. These phones are designed to call security and the receptionist and if no answer 911. These phones will automatically direct security to the exact location of the call. If a phone is activated accidentally, those responding should be informed that it is not an emergency.

HUMANITIES AND SOCIAL SCIENCES

The mission of the Department of Humanities and Social Sciences is to provide academic programming that prepares students for transfer to the baccalaureate level of study and enhances the knowledge of those pursuing a technical education at the college. Toward this end, the department offers a general Associate of Arts program of study as well as specific AA programs in English, education, psychology, and communications. The classes provide a solid core curriculum aimed at expanding and making concrete students' understanding of the foundations of our culture and language and how these relate to other world cultures. Finally, the department offers intensive developmental course work to improve the chances of successful learning for those students identified as needing tutoring in language and study skills. Public service programs in criminal justice and education also are under this division.

Many general education courses are located in the Humanities and Social Sciences Department. General education refers to the knowledge and skills that serve as the foundation to success within the program of study and throughout life. Minimum general education course requirements exist for most programs of study. Approximately one-fourth of degree requirements in most technical programs is comprised of general education courses. Additional general education courses are required for transfer and non-technical degrees.

Objectives:

1. Students planning to transfer to a four-year higher education institution for a baccalaureate degree not only earn transferable credits from an extensive

array of courses in literature, writing, history, economics, art, music, psychology, and sociology but achieve the oral and written language skills, research, and information skills, team-work skills, problem-solving proficiency and familiarity with cultural events and facts necessary for the attainment of higher education degrees.

2. Students acquiring technical and business degrees achieve the necessary proficiency in writing and communication, psychological principles, team-work, critical thinking, and cultural knowledge to be successful in their chosen careers.
3. Students pursuing a general AA degree or an AA degree with concentrations in English, communication, psychology, or education acquire a solid foundation in the concepts, language, and attitudinal requirements pertinent to a liberal arts program of study and/or to a specific humanities or social science area.
4. Students identified as less than proficient in language and/or student skills acquire the appropriate level of language skill to succeed in a college program of study.
5. Students acquire social and team-work skills and an understanding of others by participating in the societies, clubs, and other activities of the college's humanities and social science division.

To achieve these objectives the division offers courses in literature and composition; public speaking, journalism, psychology, economics, art, music, foreign languages, geography, history, political science, psychology, and sociology.

ASSOCIATE OF ARTS DEGREE (AA) GENERAL

The Associate of Arts Degree (General) is awarded to a student successfully completing the requirements as identified in the catalog on page 44. The Associate of Arts (General) will provide the student with a strong liberal arts core curriculum with the flexibility to choose electives that will satisfy a student's interest and at the same time allows the student to include courses that will transfer to most four-year institutions as the first two years of a bachelor of arts degree. Since requirements at institutions vary widely, each student should consult with the catalog of the transfer institution and plan his/her program carefully with a college advisor.

Students seeking transfer to a baccalaureate degree in humanities or social sciences such as art, criminal justice, English, history, literature, political science, psychology, or sociology should consider taking additional courses in these disciplines.

Upon completion of the Associate of Arts Degree, the graduate will be able to:

1. Communicate reasoned opinions about historical, cultural, social, and political issues.
2. Demonstrate a command of psychological, economic, social, and philosophical problems within a cultural context and be able to formulate possible solutions.
3. Demonstrate knowledge of the arts relevant to the society and culture that produced them.
4. Demonstrate basic understanding of how to successfully interact with the physical world and daily environment.
5. Demonstrate success in interacting and working with other people to accomplish a variety of goals.
6. Transfer successfully into a baccalaureate degree program.

ASSOCIATE DEGREES EDUCATIONAL PARAPROFESSIONAL

The Educational Paraprofessional Associate Degree provides students from the Tri-State area with courses applicable to a career in elementary and secondary education.

The program is designed to license graduates to work as certified educational paraprofessionals in grades Pre-kindergarten through 12 and to transfer into baccalaureate programs in Early Childhood (P-3), Middle Childhood (4-9), Secondary (10-12), or Intervention Specialist (Special Education).

Admissions to this program requires that the candidate:

- Has received a high school diploma, GED certificate, or has completed an approved home school program.
- Has completed and submitted for approval the Ohio Department of Jobs and Family Services Form for a criminal background check.
- Has completed and submitted for approval a records check through the Ohio Bureau of Criminal Investigation and Identification.

Once a candidate has been accepted into the Education Paraprofessional Associate License Program, the candidate must:

- Maintain a 2.0 GPA.
- Compile the professional portfolio required for graduation and transfer.
- Complete all course requirements for graduation.

The course of study for the educational paraprofessional includes 15 credit hours of general studies, 7-10 credit hours in natural science, 3 credit hours in fine arts, 6 credit hours in social sciences, 9 credit hours in general studies for education major, and 22-25 credit hours in teacher education courses such as Foundations of Education, Instructional Technology, Classroom Management, Characteristics of Exceptional Children, and Educational Psychology. Students should choose both

grade level and transfer institution before making final choices in regard to course selection.

This program is designed to prepare students entering the education profession with the following attributes:

- Communication skills focusing on effective written and oral communication in an educational setting with parents, fellow professionals, and community and business leaders.
- Knowledge of how to identify, assess, and assist with the education of a diverse student population.
- A working foundation of the historical, philosophical, theoretical, and legal issues of education.
- Practical professional skills to assist in the establishment and maintenance of an effective, productive, and safe educational setting.
- Personal ethical standards and professional practices used by successful education professionals.

Articulation agreements between Jefferson Community College and both Ohio and West Virginia four-year colleges allow for easy transition into a baccalaureate program. JCC also has articulation agreements with teacher education programs in regional high schools.

ASSOCIATE DEGREES WITH CONCENTRATIONS

An area of concentration is a group of courses recommended for inclusion in the Associate of Arts Degree program for students interested in pursuing the first two years of a program leading to a baccalaureate degree. The Humanities and Social Sciences Department offers concentrations in English, psychology, and communications. Students majoring in these areas will receive Associate of Arts degrees. Interested students should check the college's web site, www.jcc.edu, for updates. Students should consult their advisors about majoring in these areas.

PUBLIC SERVICE DEGREES

The Associate of Applied Science Degree for students in the Criminal Justice Program and Associate of Applied Science in Prekindergarten Care are also offered in the Humanities and Social Sciences Department. Other public service programs are being planned.

ACADEMIC STANDARDS

The faculty and dean work actively with each student but hold students accountable for their success. Students should review the standards in each course with the faculty or advisor. A grade of "C" or higher is required of all specified courses to count for graduation (See degree requirements for each major). Students who score 68 or below on college reading placement test are advised to complete ENG091 before enrolling in general education content courses such as psychology, philosophy, or history.

CAREER AND TRANSFER OPPORTUNITIES

The college has many transfer articulation agreements with four-year institutions and is developing new agreements on a regular basis.

Students should be familiar with the catalog and the program at the four-year college or university to which they wish to transfer. Students should discuss their program of study with an advisor at the desired transfer institution. Some requirements may vary from one four-year institution and from one program to another. **It is the student's responsibility to make proper course selections in keeping with transfer plans.** JCC's HOST Center advisors have access to transfer information. Both advisors and students may access the web-based Course Applicability System (CAS) at www.transfer.org for transfer and degree information.

TRANSFER OPPORTUNITIES

Jefferson Community College offers transfer opportunities in two ways. The student may pursue the Associate of Arts or the Associate of Science Degree, or may select courses listed in the Ohio Transfer Module (OTM) or in the Transfer Assurance Guides (TAG) now being developed by the Transfer and Articulation Committee of the Ohio Board of Regents.

The OTM lists basic general education courses accepted into all degree programs at four-year institutions. The TAGs being developed list courses accepted into more than 40 different majors in seven discipline areas: Arts and Humanities, Business, Communications, Education, Health, Science/Technology/Engineering, and Social Sciences. Courses listed in the OTM and the TAG (forthcoming) are in many cases subsets of the AA or the AS degree and will transfer to all Ohio public institutions once the student is accepted for admission. However, students may be required to meet additional general education requirements that are not included in the OTM or the TAG but are required for

degree completion at the transfer institution. Also, TAG courses may not apply to degree completion if a student changes his or her major in the process of transferring.

The student wishing to transfer credits to another institution should seek the advice and assistance of a faculty advisor, the division dean concerned, a HOST Center advisor, or the transfer counselor. The student should also seek direct guidance from the institution to which the student intends to transfer.

Students also may transfer credits into JCC. The college accepts courses from accredited institutions that are equivalent to courses offered at JCC. Students transferring credits into JCC must meet the residency requirement of 18 semester credit hours at JCC in order to receive a degree.

Course Applicability System (CAS)

CAS is a web-based tool used to see how courses taken at one institution transfer and apply toward a degree at another institution. **All Ohio two-year and four-**

year public colleges and universities use CAS. Directions for accessing and registering to use CAS are available in flyers and leaflets throughout the college. Once you become a member of CAS (free), you can

- view course information and academic programs offered at any institution
- check course equivalencies between institutions as determined by the receiving institution
- research degree requirements at the institution of your choice
- discover how the courses you have already taken apply toward a degree at another institution.
- store your own coursework so that the system can analyze your program and let you know what courses you need according to the institutions with which you are working
- send additional questions regarding transfer to a college or university

ASSOCIATE OF ARTS AND ASSOCIATE OF SCIENCE DEGREES

The Associate of Arts and Associate of Science Degrees at Jefferson Community College require a minimum of 62 semester hours. These degrees provide a solid liberal arts and sciences education base and are flexible enough to permit the creation of a program to fulfill personal study desires or fulfill transfer requirements.

These degrees give substantial cost savings to the student completing the first two years of his/her baccalaureate program at Jefferson Community College. A student seeking either of these degrees will work with a faculty advisor and the transfer counselor in planning the academic program. The student also should consult with an advisor at the institution to which transfer is desired.

The Associate of Arts (AA) Degree is a two-year program which parallels the first two years of a Bachelor of Arts

Degree at most four-year institutions. Depending upon the selection of electives in the AA degree, the student can progress into baccalaureate degree programs such as psychology, sociology, English, history, fine arts, communications, or other fields of interest in the arts disciplines.

The Associate of Science (AS) Degree is a two-year degree program which parallels the first two years of a Bachelor of Science Degree at most four-year institutions. Depending upon the selection of electives in the AS degree, the student can progress into baccalaureate programs such as biology, chemistry, physics, engineering, computer and information sciences, law enforcement, criminal justice, corrections, mathematics, pre-medicine, pre-dentistry, nursing, and other fields of interest in the science disciplines.

Suggested course sequences for the AA and AS degrees appear in the following charts. A list of general studies electives can be found at the beginning of the course description guide. All course descriptions, including electives, are found in the catalog course description guide. In planning a schedule, the student should know that all courses are NOT offered all semesters. Course sequencing and elective selection are critical. An appointment with an advisor or the director of transfer is essential.

Jefferson Community College has articulation agreements with many local colleges and universities, both two- and four-year. Students may check with a dean or the transfer counselor for an updated list or consult JCC's web site or the Course Applicability System.

ASSOCIATE OF ARTS - GENERAL (AA)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ENG101 English Composition I 3	COM101 Public Speaking OR COM required or relevant to transfer 3	HUM121B Cultural Heritages II 1	HUM121C Cultural Heritages III 1
CIS or OIT Elective(s) See List A below 3	ENG102 English Composition II 3	PSY102 Psychology of Human Relations 3	ECO, HIS, OR PSC Elective 3
CSS Series CCS100 Orientation to College recommended 1-3	HUM121A Cultural Heritages I 1	SOC101 Introduction to Sociology 3	Humanities OR Foreign Language Elective 3
MATH102 Survey of Mathematics OR math required for transfer 3-4	PSY101 General Psychology 3	***ART or MUS Elective 3	Humanities Elective 3
*Foreign Language Elective 4	ENG Elective OR Foreign Language Elective 3-4	Foreign Language Elective 4	Math OR Science Elective 3-4
	**Science Elective 3-4	Social Science OR Humanities Elective 3	Social Science Elective 3
Credits 14-17	Credits 16-18	Credits 17	Credits 16-18

63-69 Semester Credits

Check transfer requirements when choosing electives.

*Four semesters of foreign language are suggested for transfer for most liberal arts degree programs. Substitution may be made with dean approval.

**At least one math or science must be four credit hours.

***Electives using letter prefix ENG, HIS, ECO, MUS, ART, etc. means that any class with that letter prefix qualifies to fill that requirement.

The dean may approve appropriate substitution if necessary to meet specific transfer requirements.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ASSOCIATE OF SCIENCE (AS)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CSS Series CSS 100 Orientation to College recommended 1-3	ENG102 English Composition II 3	Humanities Elective 3	COM101 Public Speaking 3
CPS101 Introduction to Computer Science 3	Humanities Elective 3	MTH220 Calculus & Analytic Geometry I 5	Free Elective 3
ENG101 English Composition I 3	MTH121 College Trigonometry 3	Science Elective 4	Mathematics/Science Elective 3-4
MTH120 College Algebra 4	Science Elective 4	Social Science Elective 3	Social Science Elective 3
Science Elective 4	Social Science Elective 4		Social Science Elective 3
Credits 15-17	Credits 17	Credits 15	Credits 15-16

62-65 Semester Credits

Students should refer to specific AS programs for concentrations in health or biological sciences (page 35), computer science (page 95), engineering (page 97), and physical sciences (page 99).

A list of general studies electives can be found on page 156. The elective course descriptions are found in the course description guide of this catalog. Selection is critical, an appointment with an advisor or the director of transfer is essential.

Outcomes: A student graduating with an Associate of Science Degree can expect to have increased social awareness, communication skills, problem-solving, and computational/computer literacy skills.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ASSOCIATE OF ARTS - COMMUNICATIONS CONCENTRATION (AA)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CSS100 Series CSS100 Orientation to College recommended 1-3	COM101 Public Speaking 3	COM110 Conference and Group Discussion 3	COM150 Survey of Mass Media OR JRN201 Journalism and the Media 3
ENG101 English Composition I 3	COM105 Interpersonal Communications 3	ENG121 Writing for Publication 1	COM210 Advanced Presentation Skills OR ART107 Photography Check transfer requirements 3
PSY101 General Psychology 3	ENG102 English Composition II 3	JRN101 Basic Journalism 3	COM290/COM291 OR Elective Check transfer requirements 2-3
CIS OR OIT Elective See list below 3	SOC101 Introduction to Sociology 3	ENG OR Literature Elective 3	General Studies Elective 3
Science Elective** 3-4	Humanities Elective Check transfer requirements 4	Humanities OR Social Sciences Elective Check transfer requirements 3	Social Science Elective 3
	Math Elective Check transfer requirements 3	Math OR Science Elective 3-4	THE Elective OR COM114 Oral Interpretation 3
Credits 13-16	Credits 18	Credits 16-17	Credits 17-18
64-69 Semester Credits			

*A list of humanities, social science, mathematics, and science electives can be found on page 156.

**At least one math or science must be 4 credit hours to meet the Ohio Board of Regents requirements.

CIS or OIT Electives: CIS100 series, CIS213, CIS215, CIS222, OIT103, OIT207, OIT208, OIT228

Student must obtain a letter grade of C or better to progress to graduation/certification.

ASSOCIATE OF ARTS - ENGLISH CONCENTRATION (AA)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ENG101 English Composition I 3	CIS205 Internet Research (recommended) OR Non-technical Elective * 3	MTH120 College Algebra OR Math Elective * Check transfer requirements 3-4	ENG230 Advanced Composition and Rhetoric OR Literature Elective 3
HUM121 Cultural Heritages I, II, & III 3	ENG102 English Composition II 3	British or American Literature Survey Course 3	SPE101 Public Speaking OR SPE115 Oral Interpretation Check transfer requirements 3
PSY101 General Psychology 3	SOC101 Introduction to Sociology 3	English Elective 3	English Elective 3
CIS or OIT Elective*** 3	Literature Elective 3	Social Science Elective* 3	Humanities Elective* 3
Humanities Elective* 3	Science Elective** 4	Writing Elective** 3	Science Elective 3

Credits 15

Credits 16

Credits 15-16

Credits 15-16

61-63 Semester Credits

Check transfer requirements when choosing electives.

* A list of humanities, social science, mathematics, and science electives can be found on page 156.

** Writing Electives

ENG103
ENG104
ENG121
ENG151
ENG152
ENG155
JRN101
JRN201

*** CIS and OIT Electives: CIS100 series, CIS205, CIS213, CIS215, CIS222, CIS225, OIT103, OIT201, OIT203, OIT228

Literature electives listed in course descriptions.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ASSOCIATE OF ARTS - PSYCHOLOGY CONCENTRATION (AA)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CIS100 Series Computer Information 3	ENG102 English Composition II 3	MTH120 College Algebra 3	COM101 Public Speaking 3
CSS100 Series 1-3	PSY201 Child Development 3	PSY203 Social Psychology 3	PSY207 Adult Development 3
ENG101 English Composition I 3	PSY211 Abnormal Psychology 3	PSY206 Adolescent Development 3	Capstone Course OR Social Science Elective 3
PSY101 General Psychology 3	Foreign Language* OR General Studies Elective Check transfer requirements 3-4	PSY218 Personality Theories 3	Foreign Language* OR General Studies Elective Check transfer requirements 3-4
SOC101 Introduction to Sociology 3	General Studies Elective Check transfer requirements 3-4	Foreign Language* OR General Studies Elective Check transfer requirements 3-4	Science Elective** 4
Foreign Language* OR General Studies Elective Check transfer requirements 3	Science Elective** Check transfer requirements 3-4		

Credits 16-18

Credits 18-21

Credits 15-16

Credits 16-17

65-72 Semester Credits

A list of humanities, social science, mathematics, and science electives can be found on page 156.

*Two years of foreign language are required in most four-year social science degree programs.

**If transferring, science electives should be taken as two sequential courses, i.e. PHY106 and 107; CHM102 and 103; BIO114 and 115.

NOTE: PSY205 should not be taken by psychology majors unless advisor approves it as a free elective.

Student must obtain a letter grade of C or better to progress to graduation/certification.

EDUCATIONAL PARAPROFESSIONAL (AA)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
COM101 Public Speaking 3	ART101/ART102/ART104 Art Appreciation/ Fundamentals/History OR MUS101/MUS102 Music Appreciation/Fundamentals 3	EDU202 Classroom Management 3	EDU201 Instructional Technology 3
CSS105 Introduction to Education 1	EDU200 Foundations of Education 1	EDU203 Literacy, Language, and Phonics 3	EDU206 Classroom Practicum 2
ENG101 English Composition I 3	ENG102 English Composition II 3	GEO101 Geography 3	EDU207 Classroom Seminar 1
MTH100 Mathematics for Teachers OR MTH102 Survey of Mathematics 3-4	ENG210 Children's Literature OR (Pre-K-9)** ENG201 Introduction to Literature (Secondary)** 3	PSY219 Characteristics of Exceptional Children 3	PSY220 Instructional Psychology 3
PSY101 General Psychology 3	PSY205 Human Growth & Development OR PSY201/PSY202 Child/Adolescent Development 3	Natural Science Elective 3-4	Elective Check transfer requirements 3
Natural Science Elective Must include a lab 4	SOC101 Introduction to Sociology 3		Elective Check transfer requirements 3
Credits 17-18	Credits 18	Credits 15-16	Credits 15

65-67 Semester Credits

Degree modification for transfer purposes permitted with approval of advisor or program director **and** dean.
Natural Science Elective: one natural science elective must include a lab component.

Electives:

ASL100	ECE114	HIS104
ASL102	ECO101	HUM121A, B, C
ASL200	ECO102	MTH101
ECE110	HIS101	PSC101
ECE111	HIS102	PSC102
ECE112	HIS103	PSY211
ECE113		

INSTITUTIONAL TRANSFER

The Ohio Board of Regents, following the directive of the Ohio General Assembly, has developed a statewide policy to facilitate students' ability to transfer credits from one Ohio public college or university to another in order to avoid duplication of courses. Since private colleges and universities in Ohio may or may not be participating in the transfer policies, students interested in transferring to private institutions should check with the college or university of their choice regarding transfer requirements.

OHIO TRANSFER MODULE-OTM TRANSFER ASSURANCE GUIDES-TAGS

The Ohio Board of Regents' Transfer and Articulation Council has established the Ohio Transfer Module, a list of general education courses selected by the college and approved by the council that will transfer into Ohio public institutions. The Transfer Module at JCC consists of 38 semester hours of courses in mathematics, arts and humanities, social and behavioral science, and natural and physical sciences. Courses from the Transfer Module completed at any public college or university in Ohio will automatically transfer into degree programs at other Ohio public colleges or universities. Students may be required, however, to meet additional general education requirements at the institutions to which they transfer.

The OBR Transfer and Articulation Council is now in the process of creating Transfer Assurance Guides (TAGs), a list of courses that will transfer into more than 40 degree programs in seven disciplinary areas: Arts and Humanities, Business, Communications, Education, Health, Science/Technology/Engineering, and Social Science. The guides will consist of courses offered by JCC that have been approved by the council for transfer into a variety of majors. A list of approved courses is forthcoming. Students may be

required, however, to meet additional educational requirements at the institutions to which they transfer. Also, if a student changes his or her major in the process, courses taken for transfer in one major may not apply to another.

Once students are admitted to a transfer institution, they are subject to the same rights, privileges, and degree requirements as are native students at that institution. Students are also subject to the residency requirements of the institution. Students should meet with an academic advisor at the institution to which they intend to transfer as soon as possible so that the best program may be planned. Students may also access the Course Applicability System (CAS) for information about transfer to another institution.

Course Applicability System (CAS)

CAS is a web-based tool used to see how courses taken at one institution transfer and apply toward a degree at another institution. **All Ohio two-year and four-year public colleges and universities use CAS.** Directions for accessing and registering to use CAS are available in flyers and leaflets throughout the college. Once you become a member of CAS (free), you can

- view course information and academic programs offered at any institution
- check course equivalencies between institutions as determined by the receiving institution
- research degree requirements at the institution of your choice
- discover how the courses you have already taken apply toward a degree at another institution.
- store your own coursework so that the system can analyze your program and let you know what courses you need according to the institutions with which you are working
- send additional questions regarding transfer to a college or university.

RESPONSIBILITIES OF STUDENTS

In order to facilitate transfer with maximum applicability of transfer credit, prospective transfer students should plan a course of study that will meet the requirements of a degree program at the receiving institution. Specifically, students should identify early in their collegiate studies an institution and major to which they desire to transfer. Furthermore, students should determine if there are language requirements or any special course requirements that can be met during the freshman or sophomore year. This will enable students to plan and pursue a course of study that will articulate with the receiving institution's major. Students are encouraged to seek further information regarding transfer from both their advisor and the college or university to which they plan to transfer.

APPEALS PROCESS

A student disagreeing with the application of transfer credit by the receiving institution shall be informed of the right to appeal the decision and of the process for filing the appeal. Each institution shall make available to students the appeal process for that specific college or university.

If a transfer student's appeal is denied by the institution after all appeals within the institution have been exhausted, the institution shall advise the student in writing of the availability and process of appeal to the state-level Articulation and Transfer Appeals Review Committee.

The Appeals Review Committee shall review and recommend to institutions the resolutions of individual cases of appeal from transfer students who have exhausted all local appeal mechanisms concerning applicability of transfer credits at receiving institutions.

JEFFERSON COMMUNITY COLLEGE'S TRANSFER MODULE

	Semester Credit Hours		Semester Credit Hours
I. English Composition, 6 Semester Hours		In addition, the student must complete any two of the following.	
1. ENG101 English Composition I	3	The student is limited to 9 semester hours in any one subject area:	
2. ENG102 English Composition II	3	1. GEO101 World Geography	3
Total English =	6	2. HIS104 U.S. History - The Formative Period	3
II. Humanities/Literature, 9 Semester Hours		3. HIS105 U.S. History - The Modern Period	3
The student must complete one of the following numbered		4. Any ECO course listed above	3
6-hour sequences:		5. Any PSC course listed above	3
1. a. ENG201 Introduction to Literature and	3	6. Any PSY course listed above	3
b. ENG202 Survey of World Literature or	3	7. Any SOC course listed above	3
c. ENG251 American Literature or	3	Total Social Science =	12
2. a. ENG252 Survey of British Literature I	3	IV. Science, 8 Semester Hours	
b. ENG253 Survey of British Literature II	3	1. a. PHY106 College Physics I	4
3. a. HIS101 World Civilization I and	3	b. PHY107 College Physics II	4
b. HIS102 World Civilization II	3	2. a. PHY126 Science/Engineering Physics I	4
In addition, the student must complete any one of the following:		b. PHY127 Science/Engineering Physics II	4
1. ART101 Survey of Art History	3	3. a. CHM102 General Chemistry I	4
2. MUS101 Music Appreciation	3	b. CHM103 General Chemistry II	4
3. PHI101 Introduction to Philosophy	3	1. a. BIO102 Human Anatomy & Physiology	4
4. Any ENG if ENG not already selected	3	2. a. BIO106 Introduction to Biological Sciences	4
5. HIS101 or HIS102 if not already selected	3	3. a. BIO114 Principles of Biology I	4
Total Humanities =	9	b. BIO115 Principles of Biology II	4
III. Social/Behavioral Sciences, 12 Semester Hours		Total Science =	8
The student must complete one of the following numbered		V. Mathematics, 3 Semester Hours	
6-hour sequences:		1. MTH120 College Algebra	4
1. a. ECO101 Macroeconomics	3	2. MTH121 College Trigonometry	3
b. ECO102 Microeconomics	3	3. MTH220 Calculus & Analytic Geometry I	5
2. a. HIS104 U.S. History - the Formative Period	3	4. MTH224 Calculus for Business and Life Sciences	4
b. HIS105 U.S. History - The Modern Period	3	5. MTH102 Survey of Mathematics	3
3. a. PSC101 American Government	3	Total Mathematics =	3
b. PSC102 World Government	3	Total Module =	38
4. a. PSY101 General Psychology	3	Semester	
b. PSY102 Psychology of Human Relations or	3	Hours	
c. PSY205 Human Growth and Development	3		
5. a. SOC101 Introduction to Sociology	3		
b. PSY203 Social Psychology or	3		
c. SOC205 Social Problems	3		
6. a. HIS104 U.S. History - Formative	3		
b. HIS105 U.S. History - Modern	3		

ASSOCIATE OF APPLIED SCIENCE DEGREE (AA) CRIMINAL JUSTICE

The field of criminal justice is never static. Changes in national and global society and technology have the collateral effect of altering the manner in which the justice system operates. Employment in criminal justice not only requires an individual to know how to perform duties but a further understanding of why these endeavors are necessary and what the anticipated outcomes are to accomplish is imperative.

Such knowledge is achieved through an understanding of the criminal justice system, the building of critical-thinking skills to understand, analyze, and synthesize problems and topics, and through the development of writing and interpersonal communication skills.

In order to achieve these desired attributes, the Criminal Justice Program has been developed into an interdisciplinary course of study merging the liberal arts and technical studies into a well-balanced curriculum. A degree in criminal justice provides a foundation for employment in the criminal justice field, for continuation to a four-year degree-granting institution, and serves as a basis for advanced studies.

The core courses provide a basic understanding of the nature of and society's reaction to crime as well as an in-depth explanation of the various components within the criminal justice system. The technically related electives offered in the program allow the student to take courses more specific to his or her area of concentration providing a well-rounded and academically enriching course of study.

Unique to this curriculum is the opportunity to enroll in the law enforcement concentration with Police Academy Option whereby the student takes the first three semesters of the course of study. In the fourth semester the remaining law enforcement courses are completed in the Police Academy and are then counted toward graduation in the Law Enforcement Program. This option provides two advantages. First, successful completion of the Police Academy and the passing of a certification examination by the Ohio Peace Officers Training Commission may lead to commissioning as a peace officer in Ohio. In addition,

successful completion of the Police Academy will result in the granting of a two-year degree.

At the completion of the program, the student will be able to:

1. Identify and discuss the components of the justice system.
2. Compare and contrast the criminological explanations of crime and criminality.
3. Describe the role, function, and responsibilities of American law enforcement at the local, state, and federal levels.
4. Summarize the function of American corrections and organize the process of justice as it relates to correctional involvement.
5. Explain the categories of laws, describe the elements of a crime, and discuss the constitutional rights afforded by the justice system.

CORRECTIONS (MAJOR)

DAY

Changing social conditions, shifts in crime patterns and the presence of street gangs has impacted the field of corrections. As a result correctional employees must have a grounding in human behavior, possess strong interpersonal communications skills, be able to solve problems and think critically.

The interdisciplinary nature of the corrections curriculum is designed to provide students with these abilities by combining courses in the social and behavioral sciences with core classes that examine the organization, operation, and

philosophy of each component of the corrections system.

The corrections major will prepare students for employment in local, state or federal correctional facilities, juvenile detention centers, probation and parole, or for transfer to a four-year degree granting institution.

Upon completion of the program, the student will be able to:

1. Discuss the organization, operation, and philosophies of the various correctional agencies.

2. Identify and describe how procedural law are applied to issues of prisoner rights and the operation of correctional facilities.
3. Compare and contrast the categories of community-based corrections and discuss their impact on rehabilitation and recidivism.
4. Relate how ethics effects professionalism, identify ethical issues encountered in corrections, and compose solutions to ethical dilemmas.

CORRECTIONS

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CJT101 Introduction to Criminal Justice 3	CJT202 Criminal Investigation 3	COR202 Correctional Institutions in America 3	CJT105 Information Technology and Criminal Justice 3
CJT102 Procedural Law 3	COR200 Facility Safety and Fire Protection 3	COR203 Criminology 3	CJT205 Emergency Response/First Aid 2
CJT103 Crisis Intervention 3	COR205 Juvenile Delinquency 3	COR208 Constitutional Rights of Prisoners 3	CJT210 Introduction to Criminal Law 3
ENG101 English Composition I 3	ENG102 English Composition II OR ENG104 Technical and Professional Writing 3	PSY101 General Psychology 3	CJT212 Professionalism, Ethics, and Criminal Justice 3
MTH102 Survey of Mathematics 3	OIT102 Keyboarding/Speedbuilding 2	Technically Related Elective* 3	COR204 Community-Based Corrections 3
	SOC101 Introduction to Sociology 3		PSC101 American Government 3

Credits 15

Credits 17

Credits 15

Credits 17

64 Semester Credits

* Technically Related Electives

CJT204

CJT206

CJT207

CJT208

CJT209

COR206

Student must obtain a letter grade of C or better in all courses with this symbol for graduation/certification.

LAW ENFORCEMENT (MAJOR)

DAY



“I can take the practical nursing program and then transfer for my RN degree.”

ERIN HOSTERMAN
Wintersville

Law enforcement agencies have raised the standards of hiring in response to changes in society and technological advances. Today officers must be skilled in problem solving, critical thinking, interpersonal communications, planning and organizing, human behavior, and social ecology.

The interdisciplinary nature of the Law Enforcement major is intended to fulfill these demands by melding the social sciences and humanities with theoretical and pragmatic courses related to policing. The program is designed to provide students with the knowledge and skills necessary for employment with local, state, or federal agencies or transfer to a four-year degree granting institution.

Upon completion of the program, the student will be able to:

1. Discuss the role and function of policing and compare and contrast how legal prescriptions and community demands effect the delivery of services.
2. Describe the purpose of the criminal law and explain the elements of various criminal offenses.
3. Identify the Constitutional amendments and court decisions which directly impact law enforcement and apply the provisions of these amendments to specific scenarios.
4. Explain the concept of professionalism and ethics, identify how ethics effects the justice system and relate how discretion effects ethical considerations in policing.

POLICE ACADEMY OPTION

The suggested course sequence for the Police Academy Option is to complete the first three semesters of the Law Enforcement Program as outlined on the opposite page, excluding CJT205, CJT210, and any technically related electives. In the fourth semester, the remaining law enforcement courses will be completed in the Policy Academy and counted toward graduation of the Law Enforcement Program.

Students interested in pursuing both the Law Enforcement Program and the Police Academy MUST contact the Law Enforcement Program director for guidance as soon as possible.

LAW ENFORCEMENT

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CJT101 Introduction to Criminal Justice Investigation 3	CJT105 Computers/Criminal Justice 3	CJT201 Traffic Accident 3	CJT205 Emergency Response/First Aid 2
CJT102 Procedural Law 3	CJT202 Criminal Investigation 3	CJT204 Criminal Identification 3	CJT210 Introduction to Criminal Law 3
CJT103 Crisis Intervention 3	CJT213 Police Function 3	CJT212 Professionalism, Ethics, and Criminal Justice 3	Humanities OR Social Science Elective 3
ENG101 English Composition I 3	COR205 Juvenile Delinquency 3	COM101 Public Speaking 3	Technically Related Elective* 3
MTH102 Survey of Mathematics 3	ENG102 English Composition II OR ENG104 Technical and Professional Writing 3	PSC101 American Government 3	Technically Related Elective* 3
OIT102 Keyboarding/Speed Building 3	PSY101 General Psychology 3	SOC101 Introduction to Sociology 3	

Credits 17

Credits 18

Credits 18

Credits 14

67 Semester Credits

* Technically Related Electives

CJT207 COR204
 CJT208 COR206
 CJT209 COR208
 COR200 FOR200
 COR202 FOR201
 COR203 FOR205

Student must obtain a letter grade of C or better in all courses with this symbol for graduation/certification.

LAW ENFORCEMENT POLICE ACADEMY OPTION (MAJOR)

DAY

The Jefferson Community College Basic Peace Officer Training (Police Academy) is administered by the Department of Business/Industrial Training and Community Education. Academy requirements, although compatible with the associate degree in law enforcement, are different. Ohio Administrative Code 109: 2-1-04 enables any JCC student to attend the Basic Peace Officer Training Academy (Police Academy) provided they meet specific requirements that include, but are not limited to, passing a firearms course, a defensive driving course, a self-defense course, a first aid course, a cultural sensitivity course and a written examination administered by the Ohio Attorney General's office. **Participants in the Police Academy are required to submit to and pass a criminal history background check and the college admissions (COMPASS) test.** Other requirements set forth by Ohio law and the college's admissions process must also be met. Students who are interested in participating and in enrolling in the Police Academy should contact the college's Department of Business/Industrial Training and Community Education as soon as possible.

The Police Academy and Criminal Justice Technology can be linked to provide a better opportunity for employment, depending on the student's goal.

The following are classifications recognized by Ohio Peace Officers Training Council (OPOTC).

COMMISSIONED CADETS

Commissioned cadets (currently employed by a police department) are participants entering a Police Academy with a police department's endorsement. This endorsement may or may not include payment for the police academy program. Commissioned cadets must provide the Police Academy commander with a copy of their commission papers, a copy of the ordinance that gives them police power, a letter from the law enforcement agency's highest-in-command recommending an applicant for admission into the academy and a letter authorizing the billing of the sponsoring department (if applicable).

OPEN ENROLLMENT CADETS

Participants interested in enrolling in the Police Academy without a police department's endorsement or "commissioning" are known as **open enrollment** cadets.

All open enrollment cadets must have all forms (enrollment packet) completed to submit at the mandatory orientation (three weeks prior to the start of the academy). It is important to begin the enrollment documentation and financial aid processes early since this can take up to 12 weeks to finalize.

If a commission (hiring by a police department) as a law enforcement officer is not obtained within one year of passing the state certification examination, additional update training must be completed before employment as a law enforcement officer.

Open enrollment and commissioned cadets seeking admission to the Police Academy should contact the Police Academy commander to receive a letter announcing when the academy will begin. All potential cadets will pick up enrollment packets and register at the HOST Center.

POLICE ACADEMY OPTION

Jefferson Community College's Peace Office Training Academy is 558 hours in length. Some of these hours can be used towards the two-year, associate degree Law Enforcement Program. It is important to note that **Police Academy cadets WILL NOT be granted financial aid if they have already completed the academy's college coursework as part of the law enforcement curriculum.**

OPOTC requires commissioning as a law enforcement officer within **one year** after the satisfactory completion of state-certified examination. Additional update training (repetition of part of an Ohio Police Academy) is required if participants are not commissioned within the one-year time frame.

INTEGRATION OF POLICE ACADEMY AND LAW ENFORCEMENT CURRICULUM

By following the suggested course sequence, a student can complete the degree requirements and the Police Academy at the same time. This will allow a full year following graduation to find a law enforcement agency to commission the graduate without the need to repeat any portion of the Police Academy.

Suggested Course Sequence - Complete the first three semesters of the Law Enforcement Program as outlined, excluding CJT210, CJT205, and any technically related electives. In the fourth semester, the remaining law enforcement courses will be completed in the Police Academy and counted toward graduation of the Law Enforcement Program.

Students interested in pursuing both the Law Enforcement Program and the Police Academy MUST contact the commander for guidance as soon as possible.

LAW ENFORCEMENT WITH POLICE ACADEMY OPTION

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CJT101 Introduction to Criminal Justice Investigation 3	CJT105 Computers/Criminal Justice 3	CJT201 Traffic Accident 3	POA110 Firearms 2
CJT102 Procedural Law 3	CJT202 Criminal Investigation 3	CJT204 Criminal Identification 3	POA111 NHTSA Standards 4
CJT103 Crisis Intervention 3	CJT213 Police Function 3	CJT212 Professionalism, Ethics, and Criminal Justice 3	POA112 Self Defense 2
ENG101 English Composition I 3	COR205 Juvenile Delinquency 3	COM101 Public Speaking 3	POA113 Criminal Law 3
MTH102 Survey of Mathematics 3	ENG102 English Composition II OR ENG104 Technical and Professional Writing 3	PSC101 American Government 3	POA114 Police Procedures 3
OIT102 Keyboarding/Speedbuilding 3	PSY101 General Psychology 3	SOC101 Introduction to Sociology 3	POA115 Community-Oriented Policing 3
Credits 17	Credits 18	Credits 18	Credits 17

70 Semester Credits

Student must obtain a letter grade of C or better in all courses with this symbol for graduation/certification.

PREKINDERGARTEN CARE AND EDUCATION (AAS)



*"The classes
aren't too big,
and the people
are great."*

LUKE STEELE
Lisbon

The Prekindergarten Care and Education Program is designed to provide the educational background needed for graduates to pursue careers in preschool/childcare centers, and to meet state licensing requirements for an administrator as specified by the Ohio Department of Job and Family Services, Licensing Rules, #5101:2-12-25. The practicum will include placement in an infant/toddler or social service agency.

This option blends the early childhood preschool courses, which stress the care of the child from birth through age 4, with early childhood education courses now required by the state of Ohio. Requirements for entrance into the associate degree program include a records check through the Bureau of Criminal Investigation and Identification. Other requirements, as specified by the Ohio Department of Job and Family Services, must be completed prior to all practicums.

Upon completion of the Prekindergarten Care and Education Program, the graduate will be able to:

1. Apply principles of human growth, development and learning to the teaching of young children.
2. Plan appropriate learning experiences for individual children and groups of children.
3. Develop appropriate educational practices for young children to promote communication skills, and to foster the growth of skills in problem-solving, decision-making and critical thinking.
4. Recognize individual needs and use appropriate teaching strategies to address children's differences in developmental levels, ethnic backgrounds and learning styles.
5. Use effective communication skills with children, families and co-workers.
6. Recognize emergencies and provide appropriate first aid and CPR.
7. Assisting in designing an environment for child guidance, including daily program structure, to create and sustain a positive learning environment for children.
8. Prevent, recognize and manage communicable diseases including the protection of child care staff members.
9. Assist in initiating assistance for recognized child abuse and neglect.
10. Meet the Ohio Department of Job and Family Services requirements for child day care providers.

PREKINDERGARTEN CARE AND EDUCATION

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CSS105 Introduction to Education 1	COM101 Public Speaking 3	ECE111 Society, Family, and Diversity in Early Childhood Education 3	ECE106 Care and Development of Toddlers 3
ECE101 Cognitive and Physical Development of the Child 3	ECE102 Social and Emotional Development of the Child 3	ECE112 Integrating Language Arts and Literacy in the Early Childhood Curriculum 3	ECE108 Practicum 2
ECE103 Communicable Diseases/ Child Abuse Recognition 1	ECE104 Early Childhood Practicum 2	EDU202 Classroom Management: Issues and Trends 3	ECE109 Seminar 1
ECE110 Wellness and Safety in Early Childhood 3	ECE105 Early Childhood Seminar 1	ENG102 English Composition II 3	ECE113 Integrating Music, Art, and Play in the Early Childhood Curriculum 3
ENG101 English Composition I 3	EDU210 Children's Literature 3	PSY219 Characteristics of Exceptional Children 3	ECE114 Integrating Math and Science Concepts in the Early Childhood Curriculum 3
HSC102 First Aid/CPR 1	PSY201 Child Development 3	Technical Elective Advised: EDU203 3	Technical Elective 3
PSY101 General Psychology 3	SOC101 Introduction to Sociology 3		

Credits 15

Credits 18

Credits 18

Credits 15

67 Semester Credits

Technical Electives

ACC100 EDU200
 BUS101 EDU201
 BUS111 EDU203
 BUS206 MTH100
 ECE107 PSY220

Student must obtain a letter grade of C or better in all courses with this symbol for graduation/certification.

PREKINDERGARTEN CARE (CERTIFICATE)

EVENING



“The teachers are willing to help. JCC has a friendly atmosphere.”

AMBER CRONIN
Salineville

The Prekindergarten Care Program was designed for the student interested in job titles of preschool teacher, nursery school teacher, preschool teacher's aide, or nursery school teacher aide.

To become a teacher's aide in a public school system, candidates must complete the Associate of Applied Science Degree in Prekindergarten Care and Education.

The prekindergarten development classes are available for current practitioners who are interested in meeting state licensing requirement or increasing their employment opportunities.

The student may elect to take only ECE103 Communicable Diseases/Child Abuse Recognition or HSC102 First Aid/CPR, both one-credit courses. Upon satisfactory completion, the required Ohio Department of Job and Family Services' Certification of Day Care Center Personnel form will be completed by the college's instructors.

Upon completion of an Prekindergarten Care Certificate, the student may choose to complete the Prekindergarten Care and Education Associate of Applied Science Degree.

On October 30, 1993, with the enactment of Senate Bill 38, a new law went into effect in Ohio which requires people who plan to enter certain human service professions including child day care and early childhood education to complete a criminal records check. The student enrolled in ECE101 will be given the Ohio Department of Job and Family

Services' form for completion and return prior to the scheduled practicum in spring or summer semesters.

Requirements, as specified by the Ohio Department of Job and Family Services' Licensing Regulatory Unit, must be completed prior to the practicum.

Upon completion of the certificate, the student will be able to:

1. Use oral, written and listening skills to relate effectively with children, families and fellow employees.
2. Design a positive learning environment for child guidance.
3. Identify problems, and use problem-solving skills to make appropriate professionally ethical decisions.

PREKINDERGARTEN CARE

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
CSS105 Introduction to Education 1	COM101 Public Speaking 3
ECE101 Cognitive and Physical Development of the Child 3	ECD104 Social and Emotional Development of the Child 3
ECE103 Communicable Diseases/Child Abuse Recognition 1	ECD104 Early Childhood Development Practicum 2
ECE110 Wellness and Safety in Early Childhood 3	ECD105 Early Childhood Development Seminar 1
ENG101 English Composition I 3	EDU202 Classroom Management: Issues and Trends 3
HSC102 First Aid/CPR 1	ENG210 Children's Literature 3
PSY101 General Psychology 3	PSY219 Characteristics of Exceptional Children 3
PSY201 Child Development 3	

Credits 18

Credits 18

36 Semester Credits

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol to earn one-year certificate and/or continue towards an associate degree in prekindergarten care and education.

BUSINESS, COMPUTER, AND OFFICE INFORMATION TECHNOLOGIES

ACADEMIC PROGRAMS

Associate of Arts (AA) Degree

Associate of Arts: Business
Administration Transfer

Associate of Applied Business (AAB) Degrees

Accounting Technology
Business Management Technology
Emphasis: Business Management,
Real Estate Management
Computer Information Systems
Technology
Electronic Commerce Technology
Approval pending:
Interactive Digital Media Design
Marketing and Management
Web Design and Administration
Office Information Technology
Majors: Medical Office/
Coding Specialist
Emphasis: Executive, Legal

Certificates

Business Management
Computer Information Systems
Computer Information Systems
Certificate+ in Applied Business
Computer Software Certification
Medical Coding Specialist
Medical Machine Transcriptionist
Office Assistant
Approval pending:
Interactive Digital Media Design
Marketing and Management
Web Master

A large proportion of the employment opportunities in the United States and abroad are in business and business-related fields. The business student at Jefferson Community College is afforded the opportunity to prepare for a career in business and/or transfer to a four-year institution to further pursue a baccalaureate degree in business and related majors.

Jefferson Community College offers the student the option of pursuing an Associate of Applied Business Degree in one of five technical programs, an Associate of Arts Degree, and an option for an AA for Business Administration transfer. Options available to the student within the AAB technical programs are Accounting, Computer Information Systems, Business Management, and Office Information Technologies. The programs in Interactive Digital Media Design, Marketing and Management, and Web Design and Administration are pending approval from the Ohio Board of Regents. A one-year certificate is also offered in Business Management, Office Assistant, Computer Software Certification, Medical Coding Specialist and Medical Machine Transcriptionist. OBR approval is pending for certificates in Interactive Digital Media Design, Marketing and Management, and Web Master.

The Associate of Arts (AA) for Business Administration Transfer is offered as a major for students who wish to prepare for pursuing a bachelor's degree in business. Its liberal arts based curriculum combined with basic business courses prepares the student to transfer to a four-year institution with the courses that are in most cases the base of a four-year business degree.

The Associate of Arts Degree (AA) will provide the student with a strong liberal arts core curriculum with the flexibility to choose electives that will satisfy a student's interest and allow for designing a curriculum that will include courses that will transfer to most four-year institutions as the first two years of a bachelor of arts degree.

ACADEMIC STANDARDS

The faculty and dean work actively with each student providing leadership, motivation and holding students accountable for their academic success. Students should refer to faculty and

advisors for standards in each course. A grade of "C" or higher is required of all technical courses (see degree requirements per major) to count for graduation.

The faculty represent diverse backgrounds and expertise. They are highly qualified and are committed to the success of all students. Faculty and staff serve as academic advisors to students in all majors.

LABORATORIES

The college has computer labs where all computer-related courses meet. The computer labs provide the student with state-of-the-art computer hardware and software that will aid in preparing work for all of their classes. Open lab time is available for usage outside of class time as well. Students are encouraged to maximize their use of computers in all of their coursework.

CAREER AND TRANSFER OPPORTUNITIES

To aid the student in job placement and determining career opportunities, Jefferson Community College provides placement and counseling services. Faculty and staff are also valuable resources in career and job opportunity searches. The dean of humanities and social sciences, the HOST Center staff, and faculty are resources to those students seeking transfer opportunities. The college has many transfer articulation agreements with four-year institutions and is developing new agreements on a regular basis.

Current articulation agreements exist with many universities and colleges. For the most up-to-date list, students should check in the HOST Center.

The programs offered through business technologies, humanities and social sciences will enhance a student's opportunities for success in achieving their goals in business and in life.

ASSOCIATE OF ARTS: BUSINESS ADMINISTRATION TRANSFER



“No matter how old you are, you get the same treatment.”

PAMELA MARTIN
Wintersville

The Associate of Arts for Business Administration Transfer Program is designed for students who are planning to transfer into baccalaureate degree programs in business administration, management, marketing, finance and accounting along with other business programs offered at four-year institutions.

The coursework includes the basic business courses that are generally acceptable to the transfer institution. The major emphasis is on completion of general education requirements that are part of the senior institution's requirements for business majors. These are in the liberal arts areas of math, science, humanities and social sciences.

Students enrolling in this transfer program should be aware of the course requirements and application of transfer credits at the institutions to which they are considering transferring.

Working closely with the academic advisor and transfer counselor, a student will be able to tailor a program of study to fit the requirements of the desired transfer institution. It is the student's responsibility to meet requirements of a program and the needs in regards to transfer.

ASSOCIATE OF ARTS: BUSINESS ADMINISTRATION TRANSFER

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ACC101 Financial Accounting I 4	ACC102 Financial Accounting II 4	ECO101 Macroeconomics 3	COM101 Public Speaking 3
BUS101 Introduction to Business 3	BUS203 Business Law I 3	MTH121* College Trigonometry 3	ECO102 Microeconomics 3
CIS100 Series Check transfer for best selection 3	ENG102 English Composition II 3	MTH128* Statistics 3	Social Science Elective** 3
CSS100 Series CSS100 Orientation to College recommended 3	MTH120* College Algebra 4	PSY101 General Psychology 3	Humanities Elective** 3
ENG101 English Composition I 3	Science Elective 4	Humanities Elective** 3	Science Elective 4
		Humanities Elective** 3	
Credits 16	Credits 18	Credits 18	Credits 16
68 Semester Credits			

* Enrollment eligibility determined by math assessment score or successful completion of prerequisites.

** Refer to page 156 for appropriate humanities and social sciences electives. Student should consult with advisor before choosing any electives.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ACCOUNTING (AAB)



*“JCC is
affordable and
close to home.”*

MIGNON CARNEY
Steubenville

The Accounting Program is designed to prepare students for employment in entry level positions in both public and private accounting. The program also will prepare the student who wishes to continue towards a four-year degree in accounting.

As a paraprofessional, the accounting technician graduate is an important member of the management team performing cost analysis, analyzing the strengths and weaknesses of conventional financial statements, and utilizing knowledge of a firm's records to suggest improvements.

Jefferson Community College accounting graduates are currently employed by both public and private accounting firms and a broad variety of large and small business, government, and nonprofit organizations. Many of our accounting graduates have also successfully pursued bachelors degrees and CPA licenses.

The graduate will be able to:

1. Prepare and maintain a set of financial accounting records for an organization in accordance with generally accepted accounting principles.
2. Determine the need for and record proper adjusting entries at the end of interim and annual fiscal periods.
3. Close financial records (books) at the end of interim and annual fiscal periods.
4. Prepare necessary financial statements.
5. Apply theory and practical applications of cost accounting systems.
6. Use computer software to maintain records and prepare financial statements.
7. Prepare simple individual income tax returns and research tax questions.
8. Prepare and maintain payroll records.
9. Be familiar with procedures for researching the proper recording of unusual and complex financial transactions.
10. Demonstrate professional conduct and interpersonal communication skills with coworkers, clients and other business professionals.
11. Demonstrate cognizance of the interdependence of all business activities.

The accounting program graduate will have considerable experience using computers for accounting applications, including spreadsheets, integrated general

ACCOUNTING

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ACC101 Financial Accounting I 4	ACC102 Financial Accounting II 4	ACC211 Intermediate Accounting I 4	ACC204 Introduction to Income Taxes 3
BUS101 Introduction to Business 3	ACC105 Payroll Accounting 2	ACC215 Accounting Applications on Computers 3	ACC212 Intermediate Accounting II 4
ECO102 Microeconomics 3	CIS222 Spreadsheet Concepts 3	ACC220 Managerial/Cost Accounting I 4	ACC221 Managerial/Cost Accounting II 4
ENG101 English Composition I 3	COM101 Public Speaking 3	BUS203 Business Law I 3	ACC250* Accounting Practicum 2
OIT103 Keyboarding/Speedbuilding/ Formatting 3	ENG103 Business Communications 3	MTH128*** Statistics 3	ACC251* Accounting Practicum Seminar 1
	General Studies Elective** 3		ACC260 Accounting Capstone 1
Credits 16	Credits 18	Credits 17	Credits 15
66 Semester Credits			

* Students majoring in accounting are required to take ACC250 and ACC251. However if circumstances do not permit, the student may substitute, with written permission of the program director and the dean. Those listed below are recommended.

BUS204 CIS205

BUS206 CIS225

BUS221 CIS227

** A list of general studies electives can be found on page 156.

*** Students may be required to take MTH096 prior to MTH128, depending on the student's COMPASS scores.

Student must obtain a letter grade of C or better to progress to graduation/certification.

BUSINESS MANAGEMENT (AAB)



"The atmosphere is friendly and so is the teaching staff."

MIKE DAILY
Wintersville

The Business Management Program is designed to provide the educational background to enable graduates to pursue careers in management. Employment forecasters predict that a shortage of supervisors will exist during the next decade. Business management technicians will be needed to fill these openings.

As a result of analyzing the business world, the business management courses have been developed so that the business management technician will understand all the interdependent aspects of business activities. This knowledge will make the business management technician a valuable member of the management team.

Areas of concentration in this program are leadership, human resources, finance, marketing, total quality management, accounting, and computer information.

Graduates are employed in career areas such as credit, real estate, purchasing, public relations, retailing, operations, account representatives, and banking. Numerous graduates are self employed. The technical business training provided at Jefferson Community College lends itself to employment in a wide variety of business positions

The graduate will be able to:

1. Demonstrate the ability to influence individuals or group performance of assigned tasks.
2. Develop oral, written, and listening

skills to relate effectively with fellow employees.

3. Demonstrate ability to work in groups/teams.
4. Demonstrate basics of business short- and long-term planning and organizational skills.
5. Identify problems and use of problem-solving skills to make appropriate ethical decisions.
6. Identify government regulations of business operations.
7. Apply quality control techniques and tools leading to customer satisfaction.
8. Demonstrate knowledge of basic math and statistical skills used in business.
9. Apply knowledge of current computer technology and computational skills to the business environment.
10. Recognize relevant principles of economics, financial accounting and marketing, and their impact on the organization and human resources.

An optional emphasis can be added on to the business management degree.

The student who adds the **Real Estate Emphasis** will be prepared to:

1. Apply the role of the local and state government policies affecting zoning, state licensure requirements, and areas affecting real estate market.
2. Meet requirements to take the state real estate examination.

REAL ESTATE COURSES

Jefferson Community College offers four courses to prepare students for the field of real estate. The courses may be taken individually or in conjunction with the Business Management Program which leads to an Associate of Applied Business Degree. The courses are

- ◆ REA201 Principles of Real Estate
- ◆ REA202 Real Estate Law
- ◆ REA211 Real Estate Finance
- ◆ REA212 Real Estate Appraisal

BUSINESS MANAGEMENT

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
BUS101 Introduction to Business 3	BUS203 Business Law I 3	ACC101 Financial Accounting I 4	ACC102 Financial Accounting II 4
BUS111 Business Math OR MTH120 College Algebra 3-4	CIS222 Spreadsheet Concepts 3	BUS201 Principles of Marketing 3	COM101 Public Speaking 3
CIS100 Series Any three 3	ECO102 Microeconomics 3	MGT208*** Human Resources Management 3	MGT202**** Organizational Behavior 3
ECO101 Macroeconomics 3	ENG102 English Composition II OR ENG103 Business Communications 3	MGT210*** Leadership Development and Team Building 3	MGT205**** Introduction to Quality Improvement 3
ENG101 English Composition I 3	MGT201 Principles of Management 3	Technical Elective** 3	Technical Elective** 3
General Studies Elective* 3		<div>♦REA201 Principles of Real Estate 3</div> <div>♦REA211 Real Estate Finance 2</div>	<div>♦REA202 Real Estate Law 3</div> <div>♦REA212 Real Estate Appraisal 2</div>
Credits 18-19	Credits 15	Credits 16-21	Credits 16-21

65-76 Semester Credits

* A list of general studies electives can be found on page 156.

** Technical Electives

ACC204	BUS250	ECO201	MTH128	REA212
ACC220	BUS251	FIN103	OIT207	RET201
ACC221	CIS205	FIN201	OIT208	RET203
BUS204	CIS225	FIN203	OIT224	RET205
BUS206	CIS227	FIN211	REA201	RET243
BUS221	ECM101	FIN212	REA202	
BUS240	ECO105	FIN227	REA211	

*** Fall only ****Spring only

Student must obtain a letter grade of C or better to progress to graduation/certification.

— — — Business Management Major or Business Management Major with an optional Emphasis in Real Estate (♦). The student following an emphasis path will take additional courses. This may affect the total time and credits toward graduation.

COMPUTER INFORMATION SYSTEMS (AAB)

The Computer Information Systems Program is designed to prepare students for computer careers in business, government, and industry. In addition to theoretical fundamentals, practical aspects of computer information systems are emphasized. Program graduates are expected to qualify for positions as programmer trainees, programmers, and programmer analysts.

The computer information systems technician should be able to flowchart, write, and test programs in COBOL, C, C++, and Microsoft Visual Basic. These programs should include report writing, table handling, file creation, updating, and maintenance. The graduate also should have some proficiency in web page design, should be knowledgeable in spreadsheet and database software, and should have some knowledge of computer operating systems.

Using modern computer equipment, the computer information systems student will have the opportunity to tackle realistic work problems under the supervision of experienced programmers and analysts. These practice projects provide the student with valuable experience in collecting and organizing data on existing systems or carrying out specific portions of a new system design.

Program graduates actively participate in one of the nation's finest career fields. Although graduates can be employed by larger and smaller local concerns, the most pressing needs arise from companies outside the immediate area.

The computer field is a highly competitive one. Any student unable to compete in the college program in all probability will not be able to survive in the everyday computer work environment. It is for this reason that the Computer Information Systems Programs (both degree and certificate) enforce the following policy in addition to those listed by the college:

Any student who does not earn a grade of "C" or better after two attempts at a computer information systems course shall not be permitted to continue his/her enrollment in the Computer Information Systems Program without the approval of the dean of business, computer, and office information technologies. An attempt is defined as being enrolled in a computer information systems course for at least six weeks, and performing at a failing level at the time of withdrawal or completion of the course.

The graduate will be able to:

1. Develop the necessary logic process for problem-solving (translating problem into logical steps).
2. Demonstrate proficiency at programming language specifics, including syntax, grammar, etc.
3. Learn and master mechanical and keyboarding skills.
4. Demonstrate proficiency at debugging (syntax and logic errors).
5. Demonstrate a working knowledge of operating system usage and network platform.
6. Expand continually the understanding of terminology and hardware concepts/understand and use the computing cycle (I-P-O).
7. Analyze business needs to be able to apply computer capabilities, including translation and implementation.
8. Understand and apply file handling concepts.
9. Manipulate software.
10. Demonstrate proficiency at menu handling.
11. Demonstrate effective interpersonal communication skills with coworkers, customers, and other business professionals.
12. Develop independent work habits.
13. Incorporate technical knowledge into typical business settings.
14. Demonstrate professional attitude in relationships with business associates.

COMPUTER INFORMATION SYSTEMS

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ACC101 Financial Accounting I 4	CIS207 COBOL 5	BUS101 Introduction to Business 3	CIS212 Advanced Visual Basic OR CIS214 Advanced Web Site Development 3
CIS202 Programming Logic and Development 3	CPS220 Object-Oriented Programming (C++) 3	CIS211 Visual BASIC Programming 4	CIS228 Data/Operating Systems 3
CIS222 Spreadsheet Concepts 3	CIS225 Database Concepts 3	CIS213 Web Page Design 3	CIS250 CIS Practicum 2
ENG101 English Composition I 3	CIS230 Mathematics for Computers 3	CIS229 Advanced Database Concepts 3	CIS251 CIS Practicum Seminar 1
Technical Elective** 3	ENG104 Technical and Professional Writing 3	COM101 Public Speaking 3	CIS OR ECM Elective*** 3
		General Studies Elective* 3	Technical Elective** 3
Credits 16	Credits 17	Credits 19	Credits 15

67 Semester Credits

* A list of general studies electives can be found on page 156.

** Technical Electives: any CIS course above CIS100, ECM course, ACC215, BUS or MGT course.

*** Any CIS course above CIS100 or any ECM course.

Student must obtain a letter grade of C or better to progress to graduation/certification.

COMPUTER INFORMATION SYSTEMS CERTIFICATE+ IN APPLIED BUSINESS



“JCC helped me transfer credits to a four-year university.”

JOHN CRAWFORD
Toronto

The Certificate+ is designed to augment the Associate of Applied Business Degree in Computer Information Systems and can only be awarded after completion of this degree. The two semesters in this suggested sequence consist mostly of E-Commerce and Computer Science courses and will give the student additional computer-related training to make his or her CIS degree more attractive in the job market. The student must realize, especially in the computer areas today, that

success in this field demands an ongoing process of learning and staying current with the latest developments. This certificate is a good beginning to that end and offers the student more computer training than could be offered in the CIS degree alone.

All Computer Information Systems Program policies already in place still apply for this certificate.

COMPUTER INFORMATION SYSTEMS CERTIFICATE+ IN APPLIED BUSINESS

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
CIS214* Advanced Web Site Development 3	CIS227 Project Management 3
CIS215 Digital Media Design 3	CPS140 Visual Development Applications (JAVA) 3
CPS210 UNIX Operating System and Applications 3	DMD201 Digital Images 3
ECM101 Foundations of E-Commerce 3	ECM112 Site Design Methodology and Technology 3
ECM111 Internet Fundamentals for E-Commerce 3	ECM113 E-Commerce Strategies and Practices 3

Credits 15

Credits 15

30 Semester Credits

* CIS212 may be substituted for CIS214 if offered.

An associate degree in computer information systems must be completed prior to this certificate.

ELECTRONIC COMMERCE



"I feel very comfortable with the students and professors."

NAKIA THOMPSON
Steubenville

The Electronic Commerce Technology program is designed to prepare professionals to become leaders in the emerging field of electronic commerce. Three separate majors are offered by JCCC, including Interactive Digital Media Design, Electronic Commerce Marketing and Management, and Web Design and Administration. Students can receive a foundation in both business aspects and technological competencies demanded by both small and large businesses. The mixture of these skills is necessary so graduates can apply their technical expertise within the context of a business setting.

To enhance the competencies acquired, students gain the opportunity to earn technical certifications that are both recognized and in demand by those in hiring situations. Information technology certifications that may be earned include Certified Internet Webmaster, Microsoft Office Specialist, and Comp-TIA E-Biz+, and I-Net+.

Many courses in e-commerce provide an opportunity to build a portfolio of work to provide to potential employers.

The graduate will be able to:

1. Analyze business problems and provide technological solutions under the appropriate conditions.
2. Design web sites that integrate multiple design technologies.
3. Implement a successful Internet marketing strategy.
4. Describe in detail the technology of the Internet and how it relates to business.
5. Use the techniques of project management to coordinate, set, and meet deadlines for ongoing e-commerce and other business technology activities.
6. Understand the promotion of business through the web and other media.
7. Integrate database technologies into websites and other business applications to manage customer service, inventory, and sales.
8. Articulate the technological need of a business and recognize emerging trends in markets and technology.
9. Develop multimedia tools to enhance web sites and business presentations.
10. Demonstrate independent work habits.

INTERACTIVE DIGITAL MEDIA DESIGN

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
BUS111** Business Math 3	CIS225 Database Concepts 3	CIS211 Visual Basic Programming 4	COM101 Public Speaking 3
CIS100T Computing Theory 1	DMD201 Digital Images 3	CIS227 Project Management 3	DMD204 Digital Video Production 3
DMD101 Digital Media Fundamentals 3	DMD202 Digital Graphics 3	DMD203 Interactive Media and Animation 3	ECM251 Capstone Seminar 3
ECM111 Internet Fundamentals for E-Commerce 3	ECM112 Site Design Methodologies and Technologies 3	General Studies Elective 3	Technical Elective* 3
ENG101 English Composition I 3	ECM113 E-Commerce Strategies and Practices 3	Technical Elective* 3	Technical Elective** 3
ART Elective**** 3	ENG104*** Technical and Professional Writing 3		
Credits 16	Credits 18	Credits 16	Credits 15

65 Semester Credits

* Technical Elective: any ART, BUS, CIS above 100, DMD, ECM, or JRN course

**MTH120 may be taken in place of CIS230

***ENG102 may be taken in place of ENG104

****Any ART course above ART101

Pending Approval

MARKETING AND MANAGEMENT

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
BUS111** Business Math 3	BUS201 Principles of Marketing 3	ACC101 Financial Accounting 4	COM101 Public Speaking 3
CIS100T Computing Theory 1	CIS225 Database Concepts 3	CIS227 Project Management 3	DMD201 Digital Images 3
ECM101 Foundations of E-Commerce 3	ECO101 Macroeconomics 3	RET201 Advertising and Promotion 3	ECM251 Capstone Seminar 3
ECM111 Internet Fundamentals for E-Commerce 3	ECM112 Site Design Methodologies and Technologies 3	General Studies Elective 3	Technical Elective* 3
DMD101 Digital Media Fundamentals 3	ECM113 E-Commerce Strategies and Practices 3	Technical Elective* 3	Technical Elective** 3
ENG101 English Composition I 3	ENG103*** Business Communications 3		
Credits 16	Credits 18	Credits 16	Credits 15

65 Semester Credits

* Technical Elective: any ACC, BUS, CIS above 100, DMD, ECM, ECO, MGT, or MTH128 course

**MTH120 may be taken in place of BUS111

***ENG102 may be taken in place of ENG103

Pending Approval

WEB DESIGN AND ADMINISTRATION

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CIS100T Computing Theory 1	CIS225 Database Concepts 3	CIS227 Project Management 4	COM101 Public Speaking 3
CIS230** Math for Computers 3	DMD201 Digital Images 3	CPS151 Introduction to Computer Networking 3	ECM251 Capstone Seminar 3
DMD101 Digital Media Fundamentals 3	ECM112 Site Design Methodologies and Technologies 3	ECM211 E-Commerce Design/JavaScript and PERL 3	General Studies Elective 3
ECM101 Foundations of E-Commerce 3	ECM113 E-Commerce Strategies and Practices 3	ECM214 Web Server Administration 3	Technical Elective* 3
ECM111 Internet Fundamentals for E-Commerce 3	ENG104*** Technical and Professional Writing 3	Technical Elective* 3	Technical Elective** 3
ENG101 English Composition I 3	ARTElective**** 3		
Credits 16	Credits 18	Credits 15	Credits 15

64 Semester Credits

* Technical Elective: any ART, BUS, CIS above 100, CPS, DMD, ECM, ELE106, ELE107, or MTH128 course

**MTH120 may be taken in place of CIS230

***ENG102 may be taken in place of ENG104

****Any ART course above ART100

Pending Approval

ELECTRONIC COMMERCE



*"It's a great
place to learn
and socialize."*

TIMOTHY CAMP
Yorkville

The Electronic Commerce Certificates are designed for business professionals who may possess a degree in a nontechnical area and wish to gain E-Commerce skills. The certificates focus on Interactive Digital Media Design, Electronic Commerce Marketing and Management, and Web Master. They cover the objectives for the Certified Internet Webmaster (CIW) certification.

The graduate will be able to:

1. Design web sites that integrate multiple design technologies.
2. Implement a successful Internet marketing strategy.
3. Describe in detail the technology of the Internet and how it relates to business.
4. Integrate database technologies into websites and other business applications to manage customer service, inventory, and sales.
5. Articulate the technological need of a business and recognize emerging trends in markets and technology.

INTERACTIVE DIGITAL MEDIA DESIGN

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III
CIS100T Computing Theory 1	ECM112 Site Design Methodology and Technology 3	CIS211 Visual Basic Programming 4
DMD101 Digital Media Fundamentals 3	ECM113 E-Commerce Strategies and Practices 3	CIS227 Project Management 3
ECM111 Internet Fundamentals for E-Commerce 3	DMD201 Digital Images 3	DMD203 Interactive Media and Animation 3
Art Elective* 3	DMD202 Digital Graphics 3	Technical Elective** 3
Credits 10	Credits 12	Credits 13

35 Semester Credits

*Any ART course above ART101

**Any ART, CIS over 100, DMD, or ECM course

Pending Approval

MARKETING AND MANAGEMENT

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
ACC101 Financial Accounting 4	BUS201 Principles of Marketing 3
CIS100T Computing Theory 1	ECM112 Site Design Methodologies and Technologies 3
CIS227 Project Management 3	ECM113 E-Commerce Strategies and Practices 3
DMD101 Digital Media Fundamentals 3	RET201 Advertising and Promotion 3
ECM101 Foundations of E-Commerce 3	Technical Elective* 3-4
ECM111 Internet Fundamentals for E-Commerce 3	

Credits 17

Credits 15-16

33-33 Semester Credits

*Any ACC, BUS, CIS above 100, ECM, or ECO course

Pending Approval

WEB MASTER

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III
CIS100T Computing Theory 1	ECM112 Site Design Methodology and Technology 3	CIS227 Project Management 3
ECM101 Foundations of E-Commerce 3	ECM113 E-Commerce Strategies and Practices 3	ECM211 E-Commerce Design/ JavaScript and PERL 3
ECM111 Internet Fundamentals for E-Commerce 3	DMD201 Digital Images 3	ECM214 Web Server Administration 3
DMD101 Digital Media Fundamentals 3	Technical Elective** 3	DMD203 Interactive Media and Animation 3
Credits 10	Credits 12	Credits 12

34 Semester Credits

*Any CIS above 100, CPS, or DMD course

Pending Approval

MEDICAL OFFICE/CODING SPECIALIST (AAB)



“The teachers care about individual students and their education.”

SARITA ASAWA
Steubenville

The Medical Office Coding Specialist Program prepares students for positions as medical secretaries. The curriculum emphasizes familiarity with the terminology of the medical profession and the basic techniques of medical office procedures. Graduates are prepared to become confidential assistants in medical management. Graduates may work as secretaries to physicians, to staff members in a medical or health clinic, or to select personnel in a hospital.

The graduate will be able to:

1. Keyboard accurately at a minimum of 45 words per minute.
2. Use the computer to produce mailable letters and business documents.
3. Apply, pronounce and spell medical terms accurately, including various medical areas of specialization and terminology for diagnostic procedures, surgical procedures and common prescription drugs.
4. Apply proper formatting, grammar, spelling, and punctuation in production and proofreading of documents utilizing reference materials.
5. Use a personal computer to word process, manage databases, prepare spreadsheets, research, and communicate internally and externally in the office.
6. Integrate graphics into documents using computer software.
7. Transcribe a variety of medical documents accurately and efficiently using a transcribing machine.
8. Maintain manual and electronic records control systems.
9. Apply quantitative skills and principles to solve business problems.
10. Cope with interruptions, work under pressure and exercise sound judgment in daily operations of an office.
11. Perform, act, react and dress professionally in business and office settings.
12. Use decision making, management principles and knowledge to solve practical business and office problems.
13. Use communication and interpersonal skills to foster productive work environments and internal and external office communications.
14. Conduct a job search, research job possibilities, create a resume, write letters of application, interview effectively and follow up with thank you letters.

MICROSOFT OFFICE SPECIALIST CERTIFICATION COURSES

OIT203 Advanced Word Processing
CIS222 Spreadsheet Concepts
CIS225 Database Concepts
OIT208 Graphical Presentation Concepts



Successfully completing any or all of these courses will enable the student to prepare to take the Microsoft Office Certification Test in each specific application.

MEDICAL OFFICE/CODING SPECIALIST

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ENG101 English Composition I 3	BIO101 Basic Anatomy 2	ACC100 Office Accounting 3	ACC105 Payroll Accounting 2
HSC101 Medical Terminology I 2	BUS111 Business Math 3	COM105 Interpersonal Communication 3	HIM214 CPT-4 Procedural Coding 3
OIT103 Keyboarding/ Speedbuilding/Formatting 3	CIS222 Spreadsheet Concepts 3	HIM103 Introduction to Coding Systems 3	OIT222 Advanced Medical Machine Transcription 2
OIT108 Document Editing/ Proofreading/Formatting 3	ENG103 Business Communications 3	HSC103 Law and Ethics 1	OIT250 Office Practicum 2
OIT224 Records Management 3	OIT113 Advanced Formatting/Speedbuilding 3	HSC104 Medical Insurance 2	OIT251 Office Practicum Seminar 1
	OIT203 Advanced Word Processing 3	HSC106 Business Administration Health Office 3	PSY102 Psychology of Human Relations 3
		OIT212 Medical Machine Transcription 2	General Studies Elective* 3
Credits 14	Credits 17	Credits 17	Credits 16

64 Semester Credits

* A list of general studies electives can be found on page 156.

Student must obtain a letter grade of C or better to progress to graduation/certification.

MEDICAL CODING SPECIALIST CERTIFICATE

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
HIM103 Introduction to Classification Systems 3	BIO101 Basic Anatomy 2
HSC101 Medical Terminology 2	ENG101 English Composition I 3
HSC103 Law and Ethics 1	HIM214 CPT Procedural Coding 3
HSC106 Business Administration Health Office 3	HSC104 Medical Insurance 2
OIT103 Keyboarding/Speedbuilding/Formatting 3	PSY101 General Psychology 3

Credits 12

Credits 13

25 Semester Credits

MEDICAL MACHINE TRANSCRIPTION CERTIFICATE

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
ENG103 Business Communications 3	BIO101 Basic Anatomy 2
HSC101 Medical Terminology 2	OIT203 Advanced Word Processing 3
HSC103 Law and Ethics 1	OIT222 Advanced Medical Machine Transcription 2
HSC106 Business Administration Health Office 3	PSY101 General Psychology 3
OIT103 Keyboarding/Speedbuilding/ Formatting 3	
OIT212 Medical Machine Transcription 2	

Credits 14

Credits 10

24 Semester Credits

OFFICE INFORMATION TECHNOLOGY (AAB)



"I chose JCC because some of my closest friends also go here."

JENNIFER CHOMOR
Steubenville

The Office Information Technology Program will prepare students for the continuously changing role of the office professional. Graduates will be proficient in basic secretarial skills, interpersonal skills, personal computer use, communication skills, and will be familiar with all aspects of office management.

The graduate will be able to:

1. Keyboard accurately at a minimum of 45 words per minute.
2. Use the computer to produce mailable letters and business documents.
3. Apply proper formatting, grammar, spelling, and punctuation in production and proofreading of documents utilizing reference materials.
4. Use a personal computer to word process, manage databases, prepare spreadsheets, research, and communicate internally and externally in the office.
5. Integrate graphics into documents using computer software.
6. Transcribe a variety of documents accurately and efficiently using a transcribing machine.
7. Use decision making, management principles and knowledge to solve practical business and office problems.
8. Maintain manual and electronic records control systems.
9. Apply quantitative skills and principles to solve business problems.
10. Use communication and interpersonal skills to foster productive work environments and internal and external office communications.
11. Cope with interruptions, work under pressure and exercise sound judgment in daily operations of an office.
12. Perform, act, react and dress professionally in business and office settings.
13. Conduct a job search, research job possibilities, create a resume, write letters of application, interview effectively and follow up with thank you letters.

The student who adds the **Executive Emphasis** will be prepared to:

1. Meet the challenge of a career as an office assistant in business, industry, or government.
2. Transcribe business communications accurately and efficiently using a transcribing machine.

The student who adds the **Legal Emphasis** will be prepared to:

1. Understand and accurately use legal terminology in preparing legal communications and court documents.
2. Transcribe a variety of legal documents accurately and efficiently using a transcribing machine.

MICROSOFT OFFICE SPECIALIST CERTIFICATION COURSES

OIT203 Advanced Word Processing
CIS222 Spreadsheet Concepts
CIS225 Database Concepts
OIT208 Graphical Presentation Concepts



Successfully completing any or all of these courses will enable the student to prepare to take the Microsoft Office Certification Test in each specific application.

OFFICE INFORMATION TECHNOLOGY

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
❖BUS101 Introduction to Business 3	ENG103 Business Communications 3	ACC100 Office Accounting 3	ACC105 Payroll Accounting 2
◆BUS203 Business Law I 3			
BUS111 Business Math 3	CIS222 Spreadsheet Concepts 3	CIS225 Database Concepts 3	COM101 Public Speaking 3
ENG101 English Composition I 3	❖OIT113 Adv Formatting/Speedbuilding ◆OIT114 Legal Typing/Keyboarding 3 or 2	OIT208 Graphical Presentation Concepts 3	OIT207 Office Publications 3
OIT103 Keyboarding/ Speedbuilding/Formatting 3	OIT203 Advanced Word Processing 3	❖OIT210 Executive Office Transcription ◆OIT211 Legal Machine Transcription 4	OIT214 General Office Procedures 2
OIT108 Document Editing/ Proofreading/Formatting 3	PSY102 Psychology of Human Relations 3	OIT228 Web Concepts for Administrative Assistants 3	OIT250 Office Practicum 2
OIT224 Records Management 3			OIT251 Office Practicum Seminar 1
			General Studies Elective* 3

Credits 18

Credits 14-15

Credits 16

Credits 16

64-65 Semester Credits

❖Executive Office Emphasis

◆Legal Office Emphasis

* A list of general studies electives can be found on page 156.

Student must obtain a letter grade of C or better to progress to graduation/certification.

OFFICE ASSISTANT (CERTIFICATE)

Special programs leading to a one-year office assistant certificate or a computer software certificate are available for those students not seeking an associate degree. These programs seek to provide students the necessary skills to obtain entry-level office assistant positions.

The graduate will be able to:

1. Keyboard accurately at a minimum of 45 words per minute.
2. Use the computer to produce mailable letters and business documents.
3. Apply proper formatting, grammar, spelling and punctuation in production and proofreading of documents utilizing reference materials.
4. Use a personal computer to word process, manage databases, prepare spreadsheets, research and communicate internally and externally in the office.
5. Maintain manual and electronic records control systems.
6. Apply quantitative skills and principles to solve business problems.
7. Use proper telephone etiquette.
8. Cope with interruptions, work under pressure and exercise sound judgment in daily operations of an office.
9. Perform, act, react and dress professionally in business and office settings.
10. Conduct a job search, research job possibilities, create a resume, write letters of application, interview effectively and follow up with thank you letters.

OFFICE ASSISTANT

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
ACC100 Office Accounting 3	ACC105 Payroll Accounting 2
BUS111 Business Math 3	CIS222 Spreadsheet Concepts 3
ENG101 English Composition I 3	ENG103 Business Communications 3
OIT103 Keyboarding/ Speedbuilding/Formatting 3	OIT203 Advanced Word Processing 3
OIT108 Document Editing/ Proofreading/Formatting 3	OIT214 General Office Procedures 2
OIT224 Records Management 3	PSY102 Psychology of Human Relations 3

Credits 18

Credits 16

34 Semester Credits

Student must obtain a letter grade of C or better to progress to graduation/certification.

COMPUTER SOFTWARE

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
ENG101 English Composition 3	ENG103 Business Communications 3
CIS225 Database Concepts 3	CIS222 Spreadsheet Concepts 3
OIT108 Document Editing/ Proofreading/Formatting 3	OIT207 Office Publications 3
OIT208 Graphical Presentation Concepts 3	OIT203 Advanced Word Processing 3
OIT228 Web Concepts for Administrative Assistants 3	PSY102 Psychology of Human Relations 3

Credits 15

Credits 15

30 Semester Credits

Prerequisite: OIT103 or proficiency before entering program.

Student must obtain a letter grade of C or better to progress to graduation/certification.

BUSINESS MANAGEMENT (CERTIFICATE)

The certificate in Business Management is for individuals who desire knowledge of supervisory skills, or are employed in supervisory positions, or already hold a degree in a nonbusiness area. The program is designed to improve leadership, communication, and management skills. Ten courses are required and are offered both day and evening. These 10 courses are also required in the associate degree program in business management technology for those who wish to continue their college education after earning the certificate.

The graduate will be able to:

1. Demonstrate the ability to influence individuals or group performance of assigned tasks.
2. Develop oral, written, and listening skills to relate effectively with fellow employees.
3. Demonstrate ability to work in groups and teams.
4. Identify problems and use of problem-solving skills to make appropriate ethical decisions.
5. Identify government regulations of business operations.

BUSINESS MANAGEMENT

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CIS100 Series Any three courses OR CIS222 Spreadsheet Concepts 3	BUS203 Business Law I 3	MGT208* Human Resources Management 3	ENG103 Business Communications 3
ENG101 English Composition I 3	COM101 Public Speaking 3	MGT210 Leadership Development/ Team Building 3	MGT202** Organizational Behavior 3
	MGT201** Principles of Management 3		PSY102 Psychology of Human Relations 3
Credits 6	Credits 9	Credits 6	Credits 9
30 Semester Credits			

*Fall only

**Spring only

Student must obtain a letter grade of C or better to progress to graduation/certification.

COMPUTER INFORMATION SYSTEMS (CERTIFICATE)

The certificate in computer information systems technology is designed for individuals who are affiliated with the computer field, desire knowledge of computer programming and systems, or already hold a college degree. The program is designed to foster computer literacy and an understanding of industry-standard programming languages. Eight courses are required .

The computer field is a highly competitive one. Any student unable to compete in the college program in all probability will not be able to survive in the everyday computer work environment. It is for this reason that the Computer Information Systems Programs (both degree and certificate) enforce the following policy in addition to those listed by the college:

Any student who does not earn a grade of "C" or better after two attempts

at a computer information systems course shall not be permitted to continue his/her enrollment in the Computer Information Systems Program without the approval of the dean of business technologies, humanities, and social sciences. An attempt is defined as being enrolled in a computer information systems course for at least six weeks and performing at a failing level at the time of withdrawal or completion of the course.

The graduate will be able to:

1. Develop the necessary logic process for problem-solving (translating problem into logical steps).
2. Demonstrate proficiency at programming language specifics, including syntax, grammar, etc.
3. Learn and master mechanical and keyboarding skills.

4. Demonstrate proficiency at debugging (syntax and logic errors).
5. Demonstrate a working knowledge of operating system usage and network platform.
6. Expand continually the understanding of terminology and hardware concepts/understand and use the computing cycle (I-P-O).
7. Analyze business needs to be able to apply computer capabilities, including translation and implementation.
8. Understand and apply file handling concepts.
9. Manipulate software.
10. Demonstrate proficiency at menu handling.
11. Develop independent work habits.

COMPUTER INFORMATION SYSTEMS

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CIS202 Programming Logic and Development 3	CIS207 COBOL 5	CIS211 Visual BASIC Programming 4	Technical Elective** 3-4
CIS222 Spreadsheet Concepts 3	CIS225 Database Concepts 3	CIS213 Web Page Design 3	Technical Elective** 3-4
Credits 6	Credits 8	Credits 7	Credits 6-8

27-29 Semester Credits

**Technical electives

CIS205 CIS214

CIS212 CIS228

Student must obtain a letter grade of C or better to progress to graduation/certification.

INFORMATION AND ENGINEERING TECHNOLOGIES

Engineering Technology is that part of the technological field that requires the application of scientific and engineering knowledge and methods combined with technical skills in support of all engineering activities. Within that context, a graduate will apply advanced skills, experience and practice to solving engineering problems.

Programs are offered in the areas of engineering technologies, chemistry, computer science, mathematics and physics; as well as interdisciplinary technology programs.

Faculty have developed a core curriculum where a student enrolled in any one of the engineering technology programs will be exposed, with few exceptions, to the same required and general studies courses as the other engineering technologies.

It is imperative that entering students be adequately prepared for college-level study in mathematics, science and English, and begin their studies with the fall semester. Therefore, the student entering in a semester other than fall or not prepared for college-level courses, should expect to take extra time to satisfy degree requirements.

The sequences of study outlined in this catalog are the responsibility of the student to complete to earn a degree. **Any changes (including practicum) to these requirements must be pre-approved through the dean's office.**

ACADEMIC PROGRAMS

A student may earn any of the following degrees:

Associate of Applied Science (AAS), Associate of Science (AS) and Associate of Technical Study (ATS). The AAS degree is offered for engineering programs. The AS is offered as a transfer option, whereby upon successful completion a student may transfer to baccalaureate programs. The ATS degree is an interdisciplinary engineering technology program designed for a specific career preparation.

Several AS programs have been designed as parallel curricula to those of universities. These include transfer to programs such as chemistry, computer science, geology, mathematics, physics, astronomy, aviation science, earth science and similar other fields of study. AS programs can also lead to engineering fields such as chemical, civil, electrical, industrial, manufacturing, mechanical, nuclear and others. A student may also pursue engineering technology and industrial technology fields at the baccalaureate level.

Information and Engineering Technology Programs include:

Design Engineering Technology

drafting/design (AAS)
emphasis: mechanical

Electrical/Electronics Engineering Technology

electrical (AAS)
electronics (AAS)
computer service A+ (certificate)
programmable logic controller (certificate)
CISCO Certified Networking Associate (CCNA) (certificate)
CISCO Certified Networking Professional (CCNP) (certificate)

Information Technology

computer software engineering (certificate)
computer systems engineering technology (ATS-A)
information technology (ATS-A)
Microsoft Certified Systems Administrator (MSCA) (certificate)

Mechanical Engineering Technology

mechanical (AAS)

In addition, the following ATS interdisciplinary programs are also available:

Building/Construction Trades Technology (ATS-B);

Electromechanical Engineering Technology (ATS-A);

Industrial/Manufacturing Trades Technology (ATS-B);

Instrumentation and Control

Technology (ATS-A);

Robotics Technology (ATS-A);

Utilities Services Production/Maintenance Trades Technology (ATS-B).

General studies courses are offered in chemistry (general and organic), computer science ("C", "C++", JAVA, UNIX, Visual Development Applications, and Robotics Programming), mathematics (college algebra and trigonometry, calculus and analytic geometry, differential equations and statistics), physics (mechanics, heat, light, sound, electricity and magnetism), geology and earth sciences.

ACADEMIC STANDARDS

All students are strongly encouraged to carefully study the collegewide academic standards found in the Student Handbook section of this catalog. In addition, the following department standards must be met in various programs and majors:

- Each program is composed of required technical courses in which a minimum of "C" is needed for successful progress toward a degree (these courses are identified on individual degree sequences).
- Credits transferred from other institutions which are more than five years old will be subject to evaluation on a course-by-course basis.
- Students who have been absent from the college for more than one regular semester (excluding summer) will be subject to re-evaluation on an individual basis. Students who have technical credits that are more than five years old will also be subject to a re-evaluation on an individual basis.

Any questions and/or concerns regarding academic standards should be addressed to the dean's office.



Using the latest equipment in JCC's labs gives students extra knowledge.

LABORATORIES

Engineering, computer and science laboratories are representative of a strong commitment to state-of-the-art technologies. Current laboratories include: digital electronics, electrical systems, hydraulic, mechanical, robotics, CAD, computer science, physical science and chemistry.

Some highlights of technologies available in these labs include the latest programmable logic controllers, microcontrollers, power distribution and control systems, mechanical test equipment, tabletop and industrial robots, plasma cutting system, infrared spectrophotometer and gas chromatograph, AutoCAD 2004 and CISCO routers and the latest technology in computer hardware and networking.

FACULTY AND STAFF

Student have many opportunities to study and work with some of the most highly qualified faculty. Furthermore, the small size of engineering and science

classes is a major help in student learning. The department faculty represent top academic credentials, many years of industrial work experience and many additional years of college teaching experience. On a continuous basis, all department faculty and staff seek to update and/or gain the knowledge and expertise necessary to remain at the cutting edge of science and technology. Students are encouraged to seek out such knowledge in the pursuit of their academic, career and professional growth goals.

CAREER AND TRANSFER OPPORTUNITIES

Many diverse career opportunities exist for the graduates of engineering and science programs. Students are prepared to undertake professional positions in maintenance, testing, design and fabrication of various industrial systems. Many corporations (small and large) seek successful graduates of these programs both within and outside the Ohio Valley.

Every attempt is made to prepare graduates of a caliber suitable for responsible positions in business and industry. The Placement Office can provide more information regarding placement of past graduates.

On a continuous basis, transfer and articulation agreements are sought with tri-state universities. There are many opportunities of transfer to baccalaureate programs in engineering, science, mathematics, computer science, engineering and industrial technologies. To learn more about these opportunities, students are encouraged to contact the transfer counselor at the HOST Center staff.

ASSOCIATE OF SCIENCE: COMPUTER SCIENCE TRANSFER



"I tell my friends to come to JCC because of the excellent academic programs."

CRYSTAL BRINDLEY
Dennison

The Associate of Science for Computer Science Transfer is offered to approximate the first two years of a baccalaureate program in computer sciences. JCC's Transfer Module as approved by the Ohio Board of Regents is integrated into this curriculum to ensure a smooth transfer to upper division programs. As such, this degree is not intended to prepare graduates for specific occupations.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills.
2. Demonstrate competency in mathematics requirements for a typical four-year computer science degree.
3. Demonstrate an understanding of problem-solving methods, fundamentals of computer logic and structured programming.
4. Demonstrate an understanding of scientific and technical computing.
5. Demonstrate an understanding of the role of humanities and social sciences in the modern world.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete this curriculum may pursue a bachelor's degree in any discipline of computer science or a closely related field at various universities. Currently, Jefferson Community College has transfer agreements with the Franciscan University of Steubenville, Youngstown State University, University of Akron, Ohio University, Kent State University and Cleveland State University. Further information on any of these opportunities is available through the transfer counselor in the HOST Center.

ASSOCIATE OF SCIENCE: COMPUTER SCIENCE TRANSFER

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CSS100 Series CSS100 Orientation to College recommended 3	CPS120 "C" Language 3	CPS210 UNIX Operating System Applications 3	COM101 Public Speaking 3
ENG101 English Composition I 3	CPS215 Computer Operating Systems and Applications 3	ENG102 English Composition II 3	CPS220 Object-Oriented Programming 3
MTH120 College Algebra 4	MTH220 Calculus & Analytic Geometry I 5	PHY107 College Physics II OR PHY127 Science/Engineering Physics II 4	MTH221 Calculus & Analytic Geometry II 5
MTH121 College Trigonometry 3	Humanities Elective* 3	Humanities Elective* 3	PHY106 College Physics I OR PHY126 Science/Engineering Physics I 4
Social Science Elective* 3	Social Science Elective* 3	Social Science Elective* 3	Social Science Elective* 3
Credits 16	Credits 17	Credits 16	Credits 18

67 Semester Credits

* Social science and humanities electives can be found on page 156.

NOTE: The physics sequence will depend on the requirements of the institution the student wishes to transfer for obtaining a baccalaureate degree. These and elective courses must be pre-approved by the advisor.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ASSOCIATE OF SCIENCE: ENGINEERING TRANSFER



"I feel I will be able to pursue my new career with confidence."

DEE JOYNSON
Amsterdam

The Associate of Science for Engineering Transfer is offered to approximate the first two years of a baccalaureate program in engineering. JCC's Transfer Module as approved by the Ohio Board of Regents is integrated into this curriculum to ensure a smooth transfer to upper-division programs. As such, this degree is not intended to prepare graduates for specific occupations.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills.
2. Demonstrate competency in mathematics and science requirements for a typical baccalaureate engineering program.
3. Demonstrate an understanding of problem-solving methods, fundamentals of computer logic and structured programming.
4. Demonstrate an understanding of the role of humanities and social sciences in the modern world.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete this curriculum may pursue a bachelor's degree in any discipline of engineering or a closely related field at various universities. Currently, Jefferson Community College has transfer agreements with the College of Engineering at the University of Akron as well as the Franciscan University of Steubenville. These agreements allow the JCC graduates to continue their studies in any of the following fields: mathematics, chemical engineering, civil engineering, electrical engineering, engineering science and mechanical engineering. The college is seeking further transfer agreements with Youngstown State University, Ohio University and Cleveland State University. Further information regarding any of these opportunities is available through the transfer counselor in the HOST Center.

ASSOCIATE OF SCIENCE: ENGINEERING TRANSFER

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CHM102 General Chemistry I 4	CHM103 General Chemistry II 4	ENG102 English Composition II 3	COM101 Public Speaking 3
CSS100 Series CSS100 Orientation to College recommended 3	ENG101 English Composition I 3	MTH222 Calculus & Analytic Geometry III 5	MTH230 Differential Equations 4
CPS101 Introduction to Computer Science 3	MTH221 Calculus & Analytic Geometry II 5	PHY127 Science/Engineering Physics II 4	Humanities Elective* 3
MTH220 Calculus & Analytic Geometry I 5	PHY126 Science/Engineering Physics I 4	Humanities Elective* 3	Social Science Elective* 3
	Social Science Elective* 3	Social Science Elective* 3	Social Science Elective* 3
Credits 15	Credits 19	Credits 18	Credits 16
68 Semester Credits			

* Social science and humanities electives can be found on page 156.

Depending on which university a graduate may wish to transfer on completion of the above program, it is recommended that one or more of the following courses also be completed:

CPS120
 DES110
 DES115
 MCH201
 MCH202
 MCH210

NOTE: Elective courses must be pre-approved by the advisor.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ASSOCIATE OF SCIENCE: PHYSICAL SCIENCES TRANSFER



"I chose JCC to commission myself to self-actualization. JCC is a practical balance of quality and economy."

CRAIG PINKERTON
Toronto

The Associate of Science for Physical Sciences Transfer is offered to approximate the first two years of a baccalaureate program in astronomy, chemistry, geology or physics. JCC's Transfer Module as approved by the Ohio Board of Regents is integrated into this curriculum to ensure a smooth transfer to upper-division programs. As such, this degree is not intended to prepare graduates for specific occupations.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills.
2. Demonstrate competency in mathematics requirements for a typical four-year physical sciences degree.
3. Demonstrate competency in chemistry and physics requirements for a typical four-year physical sciences degree.
4. Demonstrate an understanding of problem-solving methods, fundamentals of computer logic and structured programming.
5. Demonstrate an understanding of the role of humanities and social sciences in the modern world.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete this curriculum may pursue a bachelor's degree in any discipline of astronomy, chemistry, geology or physics, or a closely related field at various universities. Currently, Jefferson Community College has a transfer agreement with the Franciscan University of Steubenville in chemistry. The college is seeking further transfer agreements with Youngstown State University, University of Akron, Ohio University, Kent State University and Cleveland State University. Further information regarding any of these opportunities is available through the transfer counselor at the HOST Center.

ASSOCIATE OF SCIENCE: PHYSICAL SCIENCES TRANSFER

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CHM102 General Chemistry I 4	CHM103 General Chemistry II 4	ENG102 English Composition II 3	COM101 Public Speaking 3
CSS100 Series CSS100 Orientation to College recommended 3	ENG101 English Composition I 3	PHY107 College Physics II OR PHY127 Science/ Engineering Physics II 4	MTH221 Calculus & Analytic Geometry II 5
CPS101 Introduction to Computer Science 3	MTH220 Calculus & Analytic Geometry I 5	Humanities Elective* 3	Humanities Elective* 3
MTH120 College Algebra 4	PHY106 College Physics I OR PHY126 Science/ Engineering Physics I 4	Social Science Elective* 3	Social Science Elective* 3
MTH121 College Trigonometry 3	Social Science Elective* 3	Social Science Elective* 3	
Credits 17	Credits 19	Credits 16	Credits 14

66 Semester Credits

* Social science and humanities electives can be found on page 156.

NOTE: The physics sequence will depend on the requirements of the institution the student wishes to transfer for obtaining a baccalaureate degree. These and elective courses must be pre-approved by the advisor.

Student must obtain a letter grade of C or better to progress to graduation/certification.

COMPUTER SYSTEMS ENGINEERING (TYPE A-ATS)



"JCC is small and personable. The staff is so helpful."

DANETTE WILSON
Toronto

This program emphasizes the skills required by the explosion in the information technology field. Almost all information is processed through computers; thus requiring a technician to be proficient in both the hardware and software aspects. Software engineering, networking and development applications are some of the emerging fields. Students in Computer Systems Engineering Technology will receive state-of-the-art education in such hardware areas as digital computer electronics, microprocessors and PC organization; system areas including operating systems and UNIX applications; and finally networking concepts including data communications, cabling, communication media, network layers, protocols, and Windows 2000 installation and support. A new networked multimedia laboratory has been incorporated to serve such state-of-the-art curriculum.

Computer Systems Engineering Technology is designed to prepare students for taking the following certification tests:

- **A+ Certification through the Computing Technology Industry Association;**
- **Microsoft Certified Professional; and**
- **Microsoft Certified Systems Engineer (MCSE).**

Graduates of the program can seek successful employment as computer technicians, network specialists, systems support, development programmers of software technicians.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communications skills.
2. Demonstrate an understanding of scientific and technical computing.
3. Measure electrical quantities in an electric circuit by using electronic test equipment.
4. Analyze and troubleshoot typical electronic circuits.
5. Demonstrate the function of combinational and sequential logic circuits.
6. Identify and troubleshoot basic Integrated Chips (IC) in a digital circuit.
7. Identify the functional blocks of a microprocessor/microcontroller.
8. Interface memory and peripheral to a microcomputer.
9. Troubleshoot and upgrade a computer system using appropriate test materials and methods.
10. Demonstrate a functional understanding of operating systems principles and applications.
11. Develop and demonstrate the ability to review various data communication techniques and media.
12. Develop a functional understanding of computer networks, hardware and systems.
13. Maintain and support information systems in a wide range of computing environments with Microsoft Windows 2000 and the integrated family of server products.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete the systems engineering major may continue their studies toward a bachelor's degree at various universities. Further transfer information is available through the dean of information and engineering technologies or transfer counselor.

COMPUTER SYSTEMS ENGINEERING

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CPS151 Introduction to Computer Networking 3	CPS153* Windows 2000 Network Infrastructure (Microsoft Course #2153) 4	CPS210 UNIX Operating Systems and Applications 3	COM101 Public Speaking 3
CPS152A* Implementing Windows 2000 Professional 3	CPS154* Windows 2000 Directory Services (Microsoft Course #2154) 4	CPS261* Designing A Windows 2000 Directory Services (Microsoft Course #1561) 3	CPS215 Computer Operating Systems and Applications 3
CPS152B* Implementing Windows 2000 Server 3	ENG101 English Composition I 3	CPS262* Designing A Windows 2000 Network Infrastructure (Microsoft Course #1562) 3	CPS226* Managing A Windows 2000 Network Environment OR CPS281* Windows 2000 Secure Network (Microsoft Course #2150) 4
MTH110 Technical Algebra 3	MTH210 Technical Calculus I 3	ELE101 Circuits I 4	ELE222 Microcomputer Organization and Networking 4
MTH111 Technical Trigonometry 3	PHY106 College Physics I 4	ELE130 Digital Computer Electronics 4	ENG104 Technical and Professional Writing 3

Credits 15

Credits 18

Credits 17

Credits 17

67 Semester Credits

* Eight-week courses -- courses may be taken during the same semester.

Note: MTH110/MTH111/MTH210 can be substituted with MTH120/MTH121/MTH220, if required for transfer to other colleges.

Student must obtain a letter grade of C or better to progress to graduation/certification.

MICROSOFT CERTIFIED SYSTEMS ADMINISTRATOR (CERTIFICATE)



"I like JCC's wonderful teaching staff and relaxed environment."

RALPH PARISSI
Wintersville

The Microsoft Certified Systems Administrator (MCSA) certificate program is designed to provide the students the skills needed to acquire entry-level employment in the field of network administration. The emphasis is on hands-on network administration and is supported by relevant theory. The students focus on communication, study, and self-learning skills in addition to the technical skills that make up the core of the program. Students receive instruction that provides preparation foundation for the MCSA series of exams. Graduates of the program can seek successful employment as computer technicians, systems support specialists, or network administrators.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills.
2. Install, upgrade, configure, and administer computer networking systems hardware and software.
3. Demonstrate an understanding of problem-solving methods essential to troubleshooting a network infrastructure.
4. Demonstrate knowledge of the key services used in a typical network environment.
5. Demonstrate the basic skills in PC troubleshooting by using software diagnostic tools, test cards, and test equipment.
6. Network PCs in both local and remote areas and optimize for performance.
7. Demonstrate a functional understanding of operating systems principles and applications.

MICROSOFT CERTIFIED SYSTEMS ADMINISTRATOR

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
CPS151 Introduction to Computer Networking 3	CPS153 Windows 2000 Network Infrastructure (Microsoft Course #2153) 4
CPS152A* Implementing Windows 2000 Professional 3	CPS215 Computer Operating Systems and Applications 3
CPS152B* Implementing Windows 2000 Server 3	CPS226 Managing a Microsoft Windows 2000 Network Environment 4
ELE101 Circuits I 4	ELE222 Microcomputer Organization and Networking 4
ELE130 Digital Computer Electronics 4	ENG101 English Composition I 3
Credits 17	Credits 18
35 Semester Credits	

* Eight-week courses -- courses may be taken during the same semester.
 Student must obtain a letter grade of C or better to progress to graduation/certification.

ELECTRONICS (AAS)



“The overall social and learning environment is ideal for the individual who prefers a ‘small town’ school.”

JOCLYN HUNTER
Wintersville

Today we live in a technological world of constant change and evolution. The new high-tech and computerized society depends on a highly skilled and specially trained corps of electronics engineering technicians to service the latest electronics equipment with new circuitry, new components, and new principles. The Electronics Engineering Technology Program provides the necessary training for graduates to obtain positions as electronics technicians, computer technicians, field service engineers, embedded programmers, local area network technicians, local area network administrators, and/or consumer electronics technicians.

The electronics program places a major emphasis on practical laboratory experience using state-of-the-art digital computers, microcontrollers, routers, switches, and other equipment used in industry. Electronics is one of the most exciting and rewarding technologies with broad and stable career opportunities.

The graduate will be able to:

1. Apply a knowledge of DC, AC, semiconductor, operational amplifier, and microprocessor theory and their function in analyzing systems operation.
2. Install, upgrade, configure, and administer computer networking systems hardware, software, and industry troubleshooting procedures.
3. Apply a detailed knowledge of microprocessor, embedded controller, embedded processor, and multiprocessor systems operation and relevant troubleshooting procedures.
4. Write system troubleshooting software for microprocessor based systems and practice using it for component level troubleshooting.

5. Relate the fundamentals of digital processing, hardware, software, and systems troubleshooting procedures.
6. Obtain experience in problem solving both individually and in group situations.
7. Follow prescribed safety procedures in all areas of laboratory.
8. Test, calibrate, and operate a variety of manufacturing, maintenance, and testing equipment effectively and safely.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete the electronics major may continue their studies toward a bachelor's degree in Electrical or Electronics Engineering Technology and/or Industrial Technology at various universities. Currently, articulation agreements with Youngstown State University and Cleveland State University allow graduates to complete approximately three years of their bachelor's degree here at Jefferson Community College. Additional agreements are being sought with University of Akron, Ohio University, and Kent State University. Further information regarding any of these opportunities is available through the dean of information and engineering technologies or transfer counselor.

This information is presented as a general program overview. Students are advised to follow the college catalog they receive upon admission to the college for program requirements.

ELECTRONICS

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ELE101 Circuits I 4	ELE102 Circuits II 4	ELE121 Electronic Circuits 4	COM101 Public Speaking 3
ELE130 Digital Computer Electronics 4	ELE222 Microcomputer Organization and Networking 4	ELE106 Computer Networking I (CISCO Semester I) 4	EGT290 IT and Engineering Seminar 1
ENG101 English Composition I 3	ENG104 Technical and Professional Writing 3	ELE107 Computer Networking II (CISCO Semester II) 4	EGT291 IT and Engineering Practicum 1-2
MTH110 Technical Algebra 3	MTH210 Technical Calculus I 3	ELE220 Programming and Interfacing Microprocessors and Microcontrollers 4	ELE206 Computer Networking III (CISCO Semester III) 4
MTH111 Technical Trigonometry 3	PHY106 College Physics I 4		ELE217 Computer Networking IV (CISCO Semester IV) 4
			General Studies Elective* 3
Credits 17	Credits 18	Credits 16	Credits 16-17

67-68 Semester Credits

* A list of General studies electives can be found on page 156.

Student must obtain a letter grade of C or better to progress to graduation/certification.

CISCO CERTIFIED NETWORK ASSOCIATE (CERTIFICATE)

The Cisco Certified Network Associate certification provides the participants the necessary knowledge and background to do basic network administration. CCNA certified professionals can install, configure, and operate LAN, WAN, and dial access services for small networks, including but not limited to use of these protocols: IP, IGRP, Serial, Frame Relay, IP RIP, VLANs, RIP, Ethernet, Access Lists.

Upon completion of the certificate, the graduate will be able to:

1. Demonstrate the ability to design, implement and maintain basic TCP/IP networks.
2. Demonstrate knowledge and the ability to implement routing protocols.
3. Demonstrate knowledge and the ability to implement switching protocols.
4. Proficiency with hubs, switches and routers.
5. Demonstrate knowledge and the ability to implement advance routing and switching concepts.
6. Demonstrate professional conduct and interpersonal communication skills with coworkers and other technical personnel.

CISCO CERTIFIED NETWORK ASSOCIATE (CCNA)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
ELE101 Circuits I 4	CPS215 Computer Operating Systems and Applications 3
ELE106* Computer Networking I 4	ELE206* Computer Networking III 4
ELE107* Computer Networking II 4	ELE217* Computer Networking IV 4
ELE130 Digital Computer Electronics 4	ELE222 Microcomputer Organization and Networking 4
	ENG101 English Composition I 3
Credits 16	Credits 18

34 Semester Credits

*Eight-week courses -- courses may be taken during the same semester.

Student must obtain a letter grade of C or better to progress to graduation/certification.

CISCO CERTIFIED NETWORK PROFESSIONAL (CERTIFICATE)

The CISCO Certified Network Professional (CCNP) certification indicates advanced or journeyman knowledge of networks. With a CCNP, a network professional can install, configure, and operate LAN, WAN, and dial access services for organizations with networks from 100 to more than 500 nodes. The courses will contain topics such as : IP, IGRP, IPX, Async Routing, AppleTalk, Extended Access Lists, IP RIP, Route Redistribution, RIP, Route Summarization, OSPF, VLSM, BGP, Serial, Frame Relay, ISDN, ISL, X.25, DDR, PSTN, PPP, VLANs, Ethernet, Access Lists, 802.10, FDDI, Transparent and Translational Bridging.

Students will learn about complex network configuration and how to diagnose and troubleshoot network problems. Students who successfully complete the ad-

vance curriculum are eligible to earn CISCO Certified Network Professional certification, provided that they pass the CISCO certification test.

Students enrolling in this certificate should be aware that the prerequisite for this certificate is any **one** of the following:

1. CCNA certification
2. Successful completion of Computer Networking I through computer networking IV at Jefferson Community College.
3. Successful completion of CISCO Networking Academy semester one through four at another school.

4. Working knowledge of CISCO equipment and with the approval of the instructor.

The graduate will be able to:

1. Demonstrate proficiency at configuring CISCO networking devices.
2. Demonstrate proficiency at operating and maintaining networks.
3. Develop the necessary logic process for problem-solving.
4. Demonstrate professional conduct and interpersonal communication skills
5. Demonstrate an understanding of the role of humanities and social sciences in the modern world.

CISCO CERTIFIED NETWORK PROFESSIONAL (CCNP)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
ELE227** Computer Networking V (CISCO Semester V) 3	ELE229** Computer Networking VII (CISCO Semester VII) 3
ELE228** Computer Networking VI (CISCO Semester VI) 3	ELE230** Computer Networking VIII (CISCO Semester VIII) 3
MTH110 Technical Algebra 3	ENG101 English Composition I 3
Humanities Elective* 3	Technical Elective*** 3

Credits 12

Credits 12

24 Semester Credits

* A list of general studies electives can be found on page 156.

** Eight-week courses -- courses may be taken during the same semester.

***CPS101, CPS152A, CPS153B

Student must obtain a letter grade of C or better to progress to graduation/certification.

COMPUTER SERVICE A+ (CERTIFICATE)



"JCC is a great way to make new friends and get a good education."

TERRY IANHAM
Steubenville

This certificate program provides the necessary training for the student to take the industry standard A+ certification tests. An industry consortium called the Computing Technology Industry Association (Comp TIA) oversees the A+ program. To pass the two A+ exams, students must show they have a skill set that Comp TIA defined after analyzing PC support activities of many companies. This certificate is intended to verify that the holder had the skills of an entry-level "computer service technician." The certified technician must be able to perform a variety of tasks such as PC troubleshooting, hardware upgrade, install and upgrade software and operating systems.

The graduate will be able to:

1. Demonstrate the basic skills in PC troubleshooting by using software diagnostic tools, test cards and test equipment such as DMMs.
2. Follow the instructions to install and upgrade a PC.
3. Install software and upgrade the operating system.
4. Identify the functional blocks of a PC.
5. Connect a variety of peripherals to a PC and correctly configure them.
6. Optimize the performance of a PC by using the available resources.
7. Network several PCs in both local and remote areas.
8. Demonstrate professional conduct and interpersonal communication skills with coworkers and other technical personnel.
9. Perform each assignment in a professional manner and to the customer's satisfaction.

COMPUTER SERVICE A+

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
CPS101 Introduction to Computer Science 3	CPS215 Computer Operating Systems and Applications 3
CPS151 Introduction to Computer Networking 3	ELE222 Microcomputer Organization and Networking 4
ELE101 Circuits I 4	ENG101 English Composition I 3
ELE130 Digital Computer Electronics 4	General Studies Elective 3
MTH110 Technical Algebra 3	

Credits 17

Credits 13

30 Semester Credits

This one-year certificate program is designed to prepare students who are interested in entering the field of computer and hardware service. (A+) is a standard industry certification awarded by the Computing Technology Industry Association.

Student must obtain a letter grade of C or better to progress to graduation/certification.

INFORMATION TECHNOLOGY (TYPE A-ATS)



"JCC will work with you and show you how college life is."

ALBERT MURRY
Toronto

This program emphasizes the skills Advances in networking and Internet technologies have created an increasing need for businesses to employ professionals trained in the information technology field. As a result of these advances, career opportunities in Network Administration have shown some of the fastest growth in the nation.

In our comprehensive program, complete coverage of hardware and operating systems is taught for several of the latest networking platforms. Students will gain the skills needed to set-up and manage high performance computer networks using the latest networking tools including TCP/IP, security firewalls, email and Internet services, and more. Students will also receive training in a variety of current technologies including Cisco, Microsoft, Novell, and Unix. In addition, students learn how to troubleshoot and repair personal computers. Hands-on experience is provided to our students through extensive lab time in each technology related course.

This hands-on training is a key aspect of the program as it helps graduates successfully make the transition from the classroom to the workplace. Our program may be just what you're looking for to get you started on a career in today's information technology driven world!

The graduate will be able to:

1. Install, upgrade, configure, and administer computer networking systems hardware, software, and industry troubleshooting procedures.
2. Demonstrate professional conduct and interpersonal communication skills.
3. Demonstrate an understanding of problem-solving methods, fundamentals of computer logic and structured programming.
4. Demonstrate a fundamental proficiency in object-oriented programming such as C++ and JAVA.
5. Develop a functional understanding of computer networks, hardware and systems.
6. Maintain and support information systems in a wide range of computing environments with Microsoft Windows 2000 and the integrated family of server products.

INFORMATION TECHNOLOGY

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ELE101 Circuits I 4	COM101 Public Speaking 3	CPS101 Introduction to Computer Science 3	CPS153* Implementing Windows 2000 Networking Infrastructure (Microsoft Course #2153) 4
ELE106* Computer Networking I (CISCO Semester I) 4	ELE206* Computer Networking III (CISCO Semester III) 4	CPS151* Introduction to Computer Networking 3	CPS154* Windows 2000 Directory Services (Microsoft Course #2154) 4
ELE107* Computer Networking II (CISCO Semester II) 4	ELE217* Computer Networking IV (CISCO Semester IV) 4	CPS152A* Implementing Windows 2000 Professional 3	EGT291 IT and Engineering Practicum 1-2
ELE130 Digital Computer Electronics 4	ELE222 Microcomputer Organization and Networking 4	CPS152B* Implementing Windows 2000 Server 3	ENG102 English Composition II OR ENG104 Technical and Professional Writing 3
	ENG101 English Composition I 3	MTH110 Technical Algebra 3	Technical Elective/ General Studies 3
		Technical Elective** 3	
Credits 16	Credits 18	Credits 18	Credits 15-16

67-68 Semester Credits

* Eight-week courses -- courses may be taken during the same semester.

** Technical Electives

CIS211 CPS120
CIS212 CPS140
CIS213 CPS210
CIS214 CPS215
CIS222 CPS220
CIS225

Student must obtain a letter grade of C or better to progress to graduation/certification.

COMPUTER SOFTWARE ENGINEERING (CERTIFICATE)



“The excellent computer-aided drafting program teachers are professional and knowledgeable.”

DON KIMBERLAND
Steubenville

The Computer Software Engineering Technology program is designed to provide the students the skills needed to acquire entry-level employment in the software industry. The emphasis is on hands-on software development rather than on the science and theory of computing. Students focus on communication, study, and self-learning skills in addition to the technical skills that make up the core of the program. Graduates are hired as software engineers, customer support technicians, system administrators, web application software engineers or software quality assurance engineers.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills.
2. Demonstrate knowledge of the key functions of systems software.
3. Demonstrate knowledge of the range of languages used in software development.
4. Identify new and emerging classes of software.
5. Translate data structure and program design into code in a programming language.
6. Compile applications into executable form.
7. Identify basic concepts of algorithm development and programming.
8. Demonstrate knowledge of principles of program design and process.

COMPUTER SOFTWARE ENGINEERING (CERTIFICATE)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
CPS101 Introduction to Computer Science 3	CPS120 "C" Language 3
CPS151 Introduction to Computer Networking 3	CPS140 Visual Development Applications (JAVA) 3
ENG101 English Composition I 3	CPS215 Computer Operating Systems and Applications 3
MTH110 Technical Algebra 3	ENG104 Technical and Professional Writing 3
MTH111 Technical Trigonometry 3	MTH210 Technical Calculus I 3

Credits 15

Credits 15

30 Semester Credits

This one-year certificate program is designed to prepare students who are interested in entering the field of computer programming.

Student must obtain a letter grade of C or better to progress to graduation/certification.

DRAFTING/DESIGN (AAS)



“Instructors are willing to help you with your personal career goals.”

JEFF LITTLETON
Toronto

The drafting/design technician's primary responsibilities are to convert technical ideas into graphic form, either manually or by computer-aided drafting (CAD). They normally prepare drawings from sketches and instructions furnished by designers, engineers and scientists for engineering concerns, manufacturers, architects and the government.

Many are employed in research and development or planning departments. The type of drawing work done can include mechanical, electrical, structural, illustration, cartography and piping.

Drafting jobs may be classified as draftsman, design draftsman and engineering designer. The drafting/design graduate is qualified as a design draftsman and is capable of assuming a leadership position.

The graduate will be able to:

1. Develop and demonstrate the ability to read, understand and prepare technical drawings.
2. Follow established engineering standards for analytical computation and design/development.
3. Demonstrate professional traits such as accuracy, neatness and organizational skills.
4. Draw, read and interpret machine part drawings using manual drafting tools and/or CAD.
5. Draw, read and interpret electrical and electronic drawings using manual drafting tools and/or CAD.
6. Develop and demonstrate the ability to prepare technical drawings utilizing computer aided drafting with AutoCAD.
7. Draw, read and interpret technical illustration drawings using manual drafting tools and computer aided drafting.
8. Draw, read and interpret structural/architectural drawings using manual drafting tools and computer-aided drafting.
9. Draw, read and interpret pipe and map drafting using manual drafting tools and computer aided drafting.
10. Demonstrate the ability to apply mathematical and geometric concepts.
11. Demonstrate knowledge of the fundamental laws of physics.
12. Read, write and speak clearly, efficiently and professionally.

DRAFTING/DESIGN

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
DES110 Drafting I 3	DES111 Drafting II 3	COM101 Public Speaking 3	CIV101 Surveying 3
ENG101 English Composition I 3	DES115 Computer Aided Design I 3	DES210 Descriptive Geometry 2	DES201 Electrical Drafting 2
MCH110 Engineering Materials 2	ENG104 Technical & Professional Writing 3	DES215 Computer Aided Design II 2	DES220 Structural/ Architectural Drafting 2
MTH110 Technical Algebra 3	MCH201 Applied Mechanics I (Statics) 3	DES222 Technical Illustration 2	DES221 Piping Drafting/ Map Drafting 2
MTH111 Technical Trigonometry 3	PHY106 College Physics I 4	MTH210 Technical Calculus I 3	EGT290 IT and Engineering Seminar 1
General Studies Elective* 3		PHY107 College Physics II 4	EGT291 IT and Engineering Practicum 1-2
◆ MCH204 Intro to Manufacturing Processes 3		◆ MCH210 Strength of Materials 3	Technical Elective** 3 ◆ MCH202 Applied Mechanics II (Dynamics) 2-3
Credits 17	Credits 16	Credits 16-19	Credits 13-15

62-67 Semester Credits

Drafting/Design with a Mechanical Emphasis: The student following the Mechanical Emphasis path will take the additional courses denoted by ◆. This may affect the total time and credits toward graduation.

* A list of general studies electives can be found on page 156.

**Technical Electives

CPS101	CPS210	MCH202
CPS120	CPS220	MCH208
CPS140	MCH102	MCH210

Student must obtain a letter grade of C or better to progress to graduation/certification.

ELECTRICAL (AAS)



“JCC is a nice college with a lot of opportunities.”

ASHLEY WOODS
Steubenville

The electrical major is designed to provide a solid foundation in the principles of electricity, with an emphasis on hands-on experience. Beginning with basic fundamentals, students move gradually to learn the theory of operation of electric machines commonly used in the industry, such as different types of direct current motors, and three phase and single phase motors. In the second year, students progress to learn how to program the PLC to control basic industrial processes. During the course of study students learn to pay close attention to the electrical safety standards and guidelines of the National Electrical Code (NEC). The relevant knowledge, the skills that industry needs today, and the competencies that are integrated into the curriculum are intended to prepare the graduate to be job-ready in the high-tech workplace at the end of two years and to enter into a rewarding career. Typical job titles include: supervisor of maintenance crew, electrical test technician, assembly technician, quality control specialist and field service representative.

The graduate will be able to:

1. Measure electrical quantities, such as voltage, current and power in electric circuits.
2. Analyze and troubleshoot typical electric circuits with the aid of computer software.
3. Measure and calculate, voltage, current and power in three phase delta and wye connected loads.
4. Use and calibrate instruments, such as, oscilloscopes, function generators and chart recorders, and demonstrate knowledge of the theory of their operation.
5. Identify and explain the function of each module of a programmable logic controller.
6. Program the PLC to control field devices, such as motors, relays, solenoids and other electromechanical devices and use its various mathematical functions.
7. Demonstrate knowledge of operation and characteristics of dc series, shunt and compound motors and generators.
8. Demonstrate knowledge of operation and characteristics of various types of single phase and three phase motors.
9. Demonstrate knowledge of single phase and three phase transformers and their various connection methods and their use in power distribution and utilization.
10. Demonstrate knowledge in applying the National Electrical Code in electrical wiring and control systems.
11. Demonstrate professional conduct and interpersonal communication skills with related personnel.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete the electrical major may continue their studies toward a bachelor's degree in Electrical or Electronics Engineering Technology and/or Industrial Technology at various universities. Currently, articulation agreements with Youngstown State University and Cleveland State University allow graduates to complete approximately three years of their bachelor's degree here at Jefferson Community College. Additional agreements are being sought with University of Akron, Ohio University and Kent State University. Further information regarding any of these opportunities is available through the dean of information and engineering technologies or transfer counselor.

ELECTRICAL

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
DES110 Drafting I 3	CHM102 General Chemistry I 4	COM101 Public Speaking 3	CPS120 "C" Language 3
ELE101 Circuits I 4	ELE102 Circuits II 4	ELE121 Electronic Circuits 4	EGT290 IT and Engineering Seminar 1
ENG101 English Composition I 3	ELE104 D.C. Machinery 3	ELE202 A.C. Machinery 3	EGT291 IT and Engineering Practicum 1-2
MTH110 Technical Algebra 3	PHY106 College Physics I 4	ELE208 Industrial Controls 3	ELE205 Power Distribution 3
MTH111 Technical Trigonometry 3	General Studies Elective 3	ENG104 Technical and Professional Writing 3	ELE207 General Instrumentation 3
			ELE214 Programmable Logic Controllers 3
			MTH210 Technical Calculus I 3

Credits 16

Credits 18

Credits 16

Credits 17-18

67-68 Semester Credits

* A list of general studies electives can be found on page 156.

Student must obtain a letter grade of C or better to progress to graduation/certification.

PROGRAMMABLE LOGIC CONTROLLERS (CERTIFICATE)



"JCC is a stepping stone to my future. It gives me the opportunity to meet new people."

AMY TAGGART
Cadiz

This certificate program is designed to allow the student to gain extensive knowledge about programming and troubleshooting Programmable Logic Controllers (PLC) in an industrial environment. PLCs are widely used to control industrial machinery, digital displays and circuitry, and sensors. Once they are linked together, they can share resources and information. Writing, documenting, storing, printing, editing and debugging ladder logic programs are essential to the operation of factories, steel plants and other manufacturing facilities. Technicians who can utilize advanced PLC programming techniques and instructions are in demand as industry updates the control process and relies more than ever on "high-tech" equipment.

The graduate will be able to:

1. Apply fundamental laws of electricity to DC and AC circuits.
2. Explain the basic components of DC and AC machines and their operations.
3. Identify basic logic gates and their applications.
4. Use Programmable Logic Controllers (PLCs) to control motors, sensors, displays and other devices and circuits.
5. Identify the schematic symbols of control devices.
6. Make necessary changes to hardware and software as specified by others.
7. Describe the hardware and software requirements for linking programmable logic controllers through data highway.
8. Use advanced programming techniques and apply shift register and sequence, as well as PID instructions to activate a variety of outputs.
9. Categorize individual control devices based on their applications.
10. Follow prescribed safety procedures in all areas of laboratory.
11. Demonstrate professional conduct and interpersonal communication skills with coworkers and other technical personnel.

OPPORTUNITIES FOR FURTHER STUDIES

Students who successfully complete the Programmable Logic Controller Certificate may seek an associate degree with additional coursework; subject to each program and/or major's requirements.

PROGRAMMABLE LOGIC CONTROLLERS

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
ELE101 Circuits I 4	ELE102 Circuits II 4	ELE121 Electronic Circuits 4	ENG101 English Composition I 3
ELE130 Digital Computer Electronics 4	ELE104 D.C. Machinery 3	ELE214 Programmable Logic Controllers 3	PHY106 College Physics I 4
MTH110 Technical Algebra 3		ELE208 Industrial Controls 3	
MTH111 Technical Trigonometry 3			

Credits 14

Credits 7

Credits 10

Credits 7

38 Semester Credits

Student must obtain a letter grade of C or better to progress to graduation/certification.

MECHANICAL (AAS)



"I took my G.E.D. here and began talking to one of the teachers and then got started on college."

BILLEY HUHN
Lore City

The Mechanical Engineering Technology Program has a heavy emphasis on automated manufacturing, computer numerical control (CNC) equipment, robotics and flexible manufacturing systems (FMS).

At the completion of the program, graduates will be engaged in designing, manufacturing, testing and developing, inspecting, operating, troubleshooting, and maintaining mechanical equipment and systems. The mechanical engineering technician can be called upon to develop and modify engineering drawings. The graduate will apply the principles of strength of materials, testing and inspecting of components in various stages of manufacturing, testing and calibrating of measuring instruments, determining material specifications, preparing lists of materials and determining cost requirements to satisfy company, government or other contract requirements. The skills acquired through this program also will enable the graduates to perform other tasks in various fields of engineering.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills (verbal and written) with coworkers and other technical personnel.
2. Apply basic concepts of kinetics and kinematics of bodies in motion or at rest.
3. Demonstrate knowledge of basic electrical principles used in electrical systems.
4. Demonstrate knowledge of manufacturing processes on different machines, tools and materials by operating a variety of manual and/or CNC (Lathe & Milling) machines.
5. Demonstrate proper use of drafting tools and equipment and produce finished drawings using manual techniques.
6. Demonstrate proficiency in the use of CAD system to produce engineering drawings.
7. Apply computers to solve engineering and related problems using knowledge of computer language.
8. Demonstrate the ability to apply mathematical and geometric concepts.
9. Demonstrate basic understanding of hydraulic and pneumatic concepts, components and systems used in the manufacturing environment and in manufactured products.
10. Demonstrate knowledge of the fundamental laws of physics: mechanics/heat/light/sound.
11. Apply concepts of statics to analyze and compute the forces on and in structures that are at rest or moving with uniform velocity.
12. Apply principles of strength and performance of materials to select and design structural components and systems.
13. Demonstrate basic knowledge of automated manufacturing systems used in industry and build a manufacturing cell.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete the mechanical major may continue their studies toward a bachelor's degree in Mechanical or Manufacturing Engineering Technology and/or Industrial Technology at various universities. Currently, articulation agreements with Youngstown State University and Cleveland State University allow students to complete in excess of two years of their bachelor's degree here at Jefferson Community College. Additional agreements are being sought with University of Akron, Ohio University and Kent State University. Further information regarding any of these opportunities is available through the dean of information and engineering technologies or transfer counselor.

MECHANICAL

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
DES110 Drafting I 3	DES111 Drafting II 3	(A) DES215 Computer Aided Design II OR (B) MCH102 Industrial Hydraulics 2-3	COM101 Public Speaking 3
ENG101 English Composition I 3	DES115 Computer Aided Design I 3	MCH110 Engineering Materials 2	(A) DES221 Pipe Drafting/Map Drafting OR (B) MCH209 Flexible Manufacturing System 2-3
MCH204 Introduction to Manufacturing Processes 3	MCH201 Applied Mechanics I (Statics) 3	MCH208 CNC (Milling & Lathe) 3	EGT290 IT and Engineering Seminar EGT291 IT and Engineering Practicum 2-3
MTH110 Technical Algebra 3	MTH210 Technical Calculus I 3	MCH210 Strength of Materials 3	ENG104 Technical and Professional Writing 3
MTH111 Technical Trigonometry 3	PHY106 College Physics I 4	PHY107 College Physics II 4	MCH202 Applied Mechanics II (Dynamics) 2
			MCH230 Mechanical Component Design 3

Credits 15

Credits 16

Credits 14-15

Credits 15-17

60-63 Semester Credits

* A list of general studies electives can be found on page 156.

(A) A student interested in more in-depth design should complete DES215 and DES221.

(B) A student interested in developing a manufacturing emphasis should complete MCH209 and MCH102.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY (TYPE A-ATS)



"I like all the one-on-one attention you get."

E.J. GANT
Wintersville

This program emphasizes those skills required by the highly competitive field of electro-mechanical technology. At the completion of the program, graduates will be engaged in designing, manufacturing, inspecting, operating, and maintaining various types of electro-mechanical systems. Within the mechanical component, manufacturing processes such as CNC & design aspects are emphasized. Within the electrical component, skills are developed in circuits, AC & DC machinery, and industrial programmable controller applications.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills (verbal and written) with coworkers and other technical personnel.
2. Demonstrate the ability to apply mathematical and geometric concepts.
3. Demonstrate the ability to produce engineering drawings using manual drafting tools and computer-aided design systems.
4. Demonstrate knowledge of electrical principles and AC/DC machinery.
5. Demonstrate knowledge of manufacturing processes on different machines, tools and materials by operating conventional and CNC equipment.
6. Apply concepts of statics to analyze and compute forces on and in structures that are at rest or moving with uniform velocity.
7. Demonstrate knowledge of principles of physics.
8. Demonstrate proficiency in industrial applications of programmable logic controllers.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete the electro-mechanical major may continue their studies toward a bachelor's degree in Mechanical or Manufacturing Engineering Technology and/or Industrial Technology at various universities. Currently, articulation agreements with Youngstown State University and Cleveland State University allow students to complete approximately 2 1/2 years of their bachelor's degree here at Jefferson Community College. Additional agreements are being sought with University of Akron, Ohio University and Kent State University. Further information regarding any of these opportunities is available through the dean of information and engineering technologies or transfer counselor.

ELECTRO-MECHANICAL ENGINEERING TECHNOLOGY

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
DES110 Drafting I 3	ELE104 DC Machinery 3	ELE202 A.C. Machinery 3	COM101 Public Speaking 3
ELE101 Circuits I 4	DES111 Drafting II 3	ELE208 Industrial Controls 3	EGT290 IT and Engineering Seminar 1
MCH204 Introduction to Manufacturing Processes 3	DES115 Computer-Aided Design I 3	ENG101 English Composition 3	EGT291 IT and Engineering Practicum 1-2
MTH110 Technical Algebra 3	MCH201 Applied Mechanics I (Statics) 3	MCH110 Engineering Materials 2	ENG104 Technical and Professional Writing 3
MTH111 Technical Trigonometry 3	PHY106 College Physics I 4	MCH208 CNC (Milling & Lathe) 3	MCH202 Applied Mechanics II (Dynamics) 2
		MCH210 Strength of Materials 3	MCH230 Mechanical Component Design 3
			MTH210 Technical Calculus I 3
Credits 16	Credits 16	Credits 17	Credits 16-17

65-66 Semester Credits

* A list of general studies electives can be found on page 156.

Student must obtain a letter grade of C or better to progress to graduation/certification.

INSTRUMENTATION AND CONTROL (TYPE A-ATS)



"JCC is close to home, the people are friendly, and the teachers are great."

DEANA ALLEN
Irondale

The Associate of Technical Study Program permits the student to earn a degree with an emphasis chosen from elements of two or more programs. Jefferson Community College offers a technical study curriculum in instrumentation and control which is largely an amalgamation of the Electrical and Electronics Engineering Technology Programs. Graduates may seek employment in the electric power industry and in many other industries utilizing industrial control systems.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills with related personnel.
2. Follow prescribed safety procedures in all areas of the laboratory.
3. Measure electrical quantities in an electric circuit by using electronic test equipment.
4. Analyze and troubleshoot typical electronic circuits.
5. Identify and troubleshoot basic Integrated Chip (IC) in a digital circuit.
6. Describe the theory, design and application of modern electronic communications systems and their relationships to the total field of electronics.
7. Identify the functional blocks of a microprocessor/microcontroller.
8. Identify industrial devices and their applications.
9. Interpret voltage, current, power and phase angle readings generated by machines.
10. Design and implement motor control protection devices.
11. Demonstrate knowledge in programming and using programmable controllers such as Allen Bradley PLCs.
12. Design industrial and residential wiring systems.
13. Apply national safety codes such as the national electrical code to electrical machinery and wiring.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete the electrical major may continue their studies toward a bachelor's degree in Electrical or Electronics Engineering Technology and/or Industrial Technology at various universities. Currently, articulation agreements with Youngstown State University and Cleveland State University allow graduates to complete approximately three years of their bachelor's degree here at Jefferson Community College. Additional agreements are being sought with University of Akron, Ohio University and Kent State University. Further information regarding any of these opportunities is available through the dean of information and engineering technologies or transfer counselor.

INSTRUMENTATION AND CONTROL

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CHM102 General Chemistry I 4	ELE102 Circuits II 4	ELE202 AC Machinery 3	COM101 Public Speaking 3
ELE101 Circuits I 4	ELE104 DC Machinery 3	ELE208 Industrial Controls 3	CPS120 "C" Language 3
ELE130 Digital Computer Electronics 4	ENG101 English Composition I 3	ELE220 Programming and Identifying Microprocessors and Microcontrollers 4	EGT290 IT and Engineering Seminar 1
MTH110 Technical Algebra 3	PHY106 College Physics I 4	ENG104 Technical and Professional Writing 3	EGT291 IT and Engineering Practicum 1-2
MTH111 Technical Trigonometry 3		MTH210 Technical Calculus I 3	ELE205 Power Distribution 3
			ELE207 General Instrumentation 3
Credits 18	Credits 14	Credits 16	Credits 14-15

62-63 Semester Credits

* A list of general studies electives can be found on page 156.

Student must obtain a letter grade of C or better to progress to graduation/certification.

ROBOTICS TECHNOLOGY (TYPE A-ATS)



"JCC has a lot to offer and it's close to home."

CHARESHA SHACKLEFORD
Steubenville

The Robotics Technology program prepares students for work in the design, development, installation and maintenance of robotic systems and industrial automated systems that are interfaced with robotics. Graduates of the program can be employed as manufacturing technicians, robot technicians, electrical/electronics technicians and field service technicians to meet the demand of numerous industries utilizing computer-integrated manufacturing (CIM) that interfaces robots with computer automated systems in CAD/CAM applications.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills (verbal and written) with coworkers and other technical personnel.
2. Identify the types, classifications, arm geometry and work envelopes of industrial robots.
3. Identify the types and components of industrial robot systems.
4. Develop, install and debug computer programs for industrial robots.
5. Demonstrate knowledge of manufacturing process on different machines, tools and materials by operating conventional and CNC equipment.
6. Demonstrate knowledge of principles of physics: mechanics/heat/light/sound.
7. Measure electrical quantities in an electric circuit by using electronic test equipment.
8. Analyze and troubleshoot typical electronic circuits.
9. Identify the functional blocks of a microprocessor/microcontroller.
10. Demonstrate an understanding of robot safety systems and design.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

Students who successfully complete the robotics major may continue their studies toward a bachelor's degree in Electronics, Industrial or Manufacturing Technology at various universities. Currently, articulation agreements with Youngstown State University and Cleveland State University allow students to complete in excess of two years towards their bachelor's degree here at Jefferson Community College. Additional agreements are being sought with University of Akron, Ohio University and Kent State University. Further information regarding any of these opportunities is available through the dean of information and engineering technologies or transfer counselor.

ROBOTICS TECHNOLOGY

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CPS101 Introduction to Computer Science 3	CPS110 Introduction to Robotics 3	CPS230 Industrial Robot Programming I 3	COM101 Public Speaking 3
ELE101 Circuits I 4	ELE102 Circuits II 4	ELE121 Electronic Circuits 4	CPS120 "C" Language 3
ELE130 Digital Computer Electronics 4	ENG101 English Composition I 3	ELE220 Programming and Interfacing Microprocessors and Microcontrollers 4	ELE222 Microcomputer Organization and Networking 4
MTH110 Technical Algebra 3	PHY106 College Physics I 4	ENG104 Technical and Professional Writing 3	MTH210 Technical Calculus I 3
MTH111 Technical Trigonometry 3	General Studies Elective* 3	MCH208 CNC (Lathe & Milling) 3	General Studies Elective* 3
Credits 17	Credits 17	Credits 17	Credits 16

67 Semester Credits

* A list of general studies electives can be found on page 156.

Student must obtain a letter grade of C or better to progress to graduation/certification.

BUILDING/CONSTRUCTION TRADES TECHNOLOGY (TYPE-B-ATS) INDUSTRIAL/MANUFACTURING TRADES TECHNOLOGY (TYPE B-ATS) UTILITIES SERVICES PRODUCTION/MAINTENANCE TRADES TECHNOLOGY (TYPE B-ATS)



*“Our
community
college is a
community
involvement.
Many students
and teachers are
active in the
community.”*

DANIEL KALE
Steubenville

Jefferson Community College can award credit for verified learning resulting from prior experience; for instance, knowledge acquired through non-college experience. It is the student's responsibility to identify the learning outcomes of the experience, what was learned, what the specific objectives were, how those objectives were learned, from whom the objectives were learned, and if and how the learning can be directly linked to an existing college course. If it is determined that the learning can be directly linked, Jefferson Community College course credit may be granted. If the learning is not closely allied to an existing course but is of significant value and of college level, special topics credit may be granted. This credit can be awarded when the learning is not specifically course related but is college equivalent, possessing value in and of itself, and contributing to the personal career development of the learner in the concentration identified in the degree approval. The dean will make this decision based on the student's documented evidence of the learning experience.

This degree (ATS-Type B) is awarded for the satisfactory completion of a minimum of 60 semester credit hours in an individually planned technical education program, which contains an area of concentration formed by credits awarded by the institution for courses completed or training received by a student at other higher education institutions, educational centers and/or other education enterprises judged by the institution to be of college level.

An interested student must file an application form outlining the area of concentration and designating course areas for further study, which must be approved and signed by the dean.

A sample sequence of courses follows for full-time day students in the ATS (Type B) programs for (1) Building/Construction Trades Technology; (2) Industrial/Manufacturing Trades Technology; (3) Utility Services Production / Maintenance Trades Technology. The sample sequence is identical for all three programs.

Under a proposed agreement with the Steubenville Joint Apprenticeship and Training Committee (IBEW-NECA), a graduate of the five-year Inside Apprenticeship program may seek an Associate of Technical Study (Type-B) in Electrical Trades Technology at Jefferson Community College. Under this agreement, an apprenticeship graduate will receive up to 47 credits toward graduation and must complete the following courses (or approved alternates) within the maximum of four years: English Composition I, Technical and Professional Writing, Public Speaking, Technical Algebra, Technical Trigonometry, and College Physics I.

Information and conditions of admission to this program can be obtained by contacting the dean of information and engineering technologies.

BUILDING/CONSTRUCTION TRADES TECHNOLOGY INDUSTRIAL/MANUFACTURING TRADES TECHNOLOGY UTILITIES SERVICES PRODUCTION/MAINTENANCE TRADES TECHNOLOGY

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CHM102 General Chemistry I 4	PHY106 College Physics I 4	DES110 Drafting I 3	COM101 Public Speaking 3
CPS101 Introduction to Computer Science 3	Technical Elective** 3	ENG104 Technical and Professional Writing 3	CPS120 "C" Language 3
ENG101 English Composition I 3	Technical Elective** 3	PHY107 College Physics II 4	General Studies Elective* 3
MTH110 Technical Algebra 3	Technical Elective** 4	Technical Elective** 4	Technical Elective** 4
MTH111 Technical Trigonometry 3			Technical Elective** 3
Credits 16	Credits 14	Credits 14	Credits 16

60 Semester Credits

* A list of general studies electives can be found on page 156.

** Technical Electives: Must be taken only upon the approval of the dean.

Student must obtain a letter grade of C or better to progress to graduation/certification.

HEALTH AND BIOLOGICAL SCIENCES

The Health and Biological Sciences Department offers a variety of career and transfer-oriented academic programs to serve the educational needs of the students and the community.

Objectives

1. The Health and Biological Sciences Department will incorporate the college's general education learning outcomes into each academic program.
2. The Health and Biological Sciences Department will provide students an educational environment conducive to learning in the classroom, lab, and off-campus facilities.

Health Sciences represent a series of degrees, certificates, programs, and courses which require "people skills," a caring attitude, and a commitment to helping others. The health field is service-oriented, meets specific community needs, and provides excellent self-satisfaction and personal rewards. The Ohio Board of Regents empowered JCC to grant Associate of Applied Science Degrees and award certificates of achievement. The college awards, by approval of the Ohio Board of Nursing, a certificate in Practical Nursing. The college awards, by approval of the Ohio Department of Public Safety Service Division of EMS, certificates of completion for the EMT-Paramedic program.

HEALTH PROGRAMS AVAILABLE

- Clinical Laboratory Technician (Associate Degree)
- Dental Assisting (Associate Degree)
- Dental Assisting (Certificate)
- Expanded Functions Dental Assisting (Certificate)
- EMT-Paramedic (Certificate)
- Medical Assisting (Associate Degree)
- Medical Assisting (Certificate)
- Phlebotomy (Certificate)
- Practical Nursing (Certificate)
- Radiologic Technology (Associate Degree)
- Respiratory Therapy (Associate Degree)

Each program has been designed to provide the student with on-campus classroom and laboratory instruction and laboratory practice. This experience is complemented by planned observations and participation in supervised practicum, clinical lab, or clinical education experiences within cooperating clinical affiliates.

TECHNICAL STANDARDS

The health sciences faculty recognize that the academic potential of an applicant must be complemented by evidence of good health; an indication of a real interest and desire to work with the sick or injured; a genuine concern for people; and desirable personal traits including an ability to interact and communicate effectively in writing, verbally and non-verbally with patients and other medical and health professionals; good grooming; moral integrity; and emotional maturity. A copy of technical standards specific for each program is mailed to all prospective students from the Admissions Office.

HEALTH REQUIREMENTS

The applicant accepted into a specific health technology program must provide pre-entrance and/or pre-clinical or pre-practicum medical information prior to starting clinical education. In order for the applicant to progress successfully through the curriculum and function as a practicing member of the health care team after graduation, the following physical attributes also are needed: (1) visual acuity with corrective lenses if required; (2) hearing ability with auditory aids to understand the normal speaking voice without viewing the speaker's face; (3) sufficient physical ability to assess and perform CPR; (4) sufficient speaking ability to be able to question the client and to relay information about the patient verbally to others; and (5) enough manual dexterity to perform safe, effective procedures in the delivery of health care. The Medical/Dental Requirements Chart, located in this section, lists specific student health requirements by program. Forms are available in the college's Admissions Office.



Hands-on experience is the hallmark of JCC's health sciences programs such as dental assisting.

ADMISSIONS PROCEDURE

Admission to Jefferson Community College **does not automatically** assure admission into a select health sciences program. All health sciences programs have additional requirements/prerequisites for admission that **must** be completed by the student **prior to** official program acceptance.

For some students additional requirements in chemistry, math, and/or anatomy (prerequisite courses) may be needed prior to acceptance. These requirements are identified in program admission packets, specific to each health major, available in the Admissions Office and mailed to inquiring students. Also, students should review the health sciences program admissions criteria on page 15.

After all health program prerequisites are met, the prospective student must:

1. Notify the Admissions Office that all requirements have been completed.
2. Sign a "release form" to allow his/her records to be forwarded for review.

The Admissions Office then will forward the student's file to the Office of Health and Biological Sciences for review by both the program director and dean. Seats are only assigned to a student who has **completed** all program requirements. Upon official program acceptance, a letter will be mailed to the student with specific instructions. Alternate status letters also are mailed when program capacity is met.

Enrollment in health sciences programs is limited due to clinical availability. Potential applicants are encouraged to **apply early** for acceptance into a specific program.

Because of the rolling admission "open door" admittance policy, students can be in the middle of a semester, trying to complete specific prerequisites and program seats can become **unavailable**. **In the event that only one seat remains open, but more than one student's file is ready for review, a lottery draw could occur.**

ACADEMIC AND PROFESSIONAL STANDARDS

Applicants accepted for admission to a health program are required to follow approved program professional dress codes in college laboratory sessions and off-campus clinical sessions within cooperating affiliates. **Student health and liability insurance is mandatory for all students enrolled in health sciences.** Radiation badge monitoring services are mandatory for dental assisting and radiologic technology students. All students must carry health insurance at their own expense.

The student's **continuation** in a health technologies program may be contingent upon receiving a minimum grade of "C" in each technical and, in some programs, technically related course or laboratory; a minimum grade of "P" in all college and clinical (practicum) labs; and meeting class and clinical (practicum) attendance requirements. (See appropriate program handbook.) The student who fails to satisfactorily fulfill minimum academic requirements by the end of the semester or term will not be allowed to continue in the program. Students may apply for

readmission; **if accepted, they must complete the program in its entirety during the second readmission period.**

Applicants accepted for admission into each health program will be provided with a student handbook, which contains specific policies and procedures that students must adhere to during their program enrollment.

The student who successfully completes a health science program and/or option will be endorsed by the college to sit for the appropriate state or national licensure, registration, or certification examination.

BIOLOGICAL AND HEALTH SCIENCES COURSES

In addition to the programs offered in specific health sciences, the Department of Health and Biological Sciences offers many courses for students who are not enrolled in a specific health program. These courses may be applied toward the Associate of Science in Health and Biological Sciences; be taken for professional advancement by persons currently employed in health care; or be completed by students preparing to enter a health technology program at a future date. In addition, these courses may be taken and transferred as electives or general education courses to the student's home college.

Students should check the Course Description Guide for more specific information about each course.

MEDICAL/DENTAL REQUIREMENTS MUST BE COMPLETED BEFORE STARTING CLINICALS

HEALTH PROGRAMS	Clinical Laboratory Prior to CLT206	Dental Assisting Prior to Clinical	EFDA Prior to Clinical	EMT-Paramedic Prior to Clinical	Medical Assisting Prior to Practicum
Medical History	X	X		X	X
Physical Exam	X	X		X	X
Dental Exam	X	X			X
Macroscopic Urinalysis	X			X	
Tetanus (within seven years)	X			X	X
Tuberculosis Detection*	X	X		X	X
Hepatitis Vaccine	X***	X	X	X	X
Verification of Antibody Status	X***			X	X
MMR Vaccine**	X			X	X
Health Insurance	X	X	X	X	X
CPR Card		X	X	X	X
Blood Borne Pathogen Card		X			

HEALTH PROGRAMS	Phlebotomy Technician Prior to PLB102	Practical Nursing Prior to Clinical	Radiologic Technology Prior to Clinical	Respiratory Therapy Prior to Clinical
Medical History	X	X	X	X
Physical Exam	X	X	X	X
Dental Exam	X	X	X	X
Macroscopic Urinalysis	X	X	X	X
Tetanus (within seven years)	X	X	X	X
Tuberculosis Detection*	X	X	X	X
Hepatitis Vaccine	X	X	X	X
Verification of Antibody Status	X	X	X	X
MMR Vaccine**	X	X	X	X
Health Insurance	X	X	X	X
CPR Card		X****	X	X
Blood Borne Pathogen Card				X

X Required

* Options: Mantoux or chest X-ray (Two-step Mantoux required)

** Titer if MMR prior to 1979

*** Prior to CLT102

**** Prior to PNR106 and PNR107

ASSOCIATE OF SCIENCE: HEALTH OR BIOLOGICAL SCIENCES TRANSFER



*instructors and
staff really work
with a person
with disabilities.”*

LEE THOMPSON
Richmond

The Associate of Science for Health or Biological Sciences Transfer is offered to approximate the first two years of a baccalaureate program in the health or biological sciences or for entrance to a specialized health professional program. This curriculum is designed for students who wish to transfer to a four-year institution to study premedical, pre-dental or pre-veterinary medicine; physical or occupational therapy; optometry; biology; or any biological science. This program also is appropriate for any health technology student who wishes to pursue an education beyond the AAS degrees offered by the college.

JCC's Transfer Module as approved by the Ohio Board of Regents is integrated into this curriculum to ensure a smooth transfer to upper-division programs. As such, this degree is **not** intended to prepare graduates for specific occupations.

The graduate will be able to:

1. Demonstrate professional conduct and interpersonal written and oral communication skills.
2. Demonstrate competency in mathematics and science requirements for a typical four-year health or life sciences degree.
3. Demonstrate competency in biological requirements for a typical four-year health or life sciences degree.
4. Demonstrate an understanding of problem-solving methods, critical thinking and computer literacy.
5. Demonstrate an understanding of the role of humanities and social sciences in the modern world.

OPPORTUNITIES FOR BACCALAUREATE STUDIES

The coursework includes the basic math and science courses that are generally acceptable to the transfer institution. The major emphasis is on completion of general education requirements that are part of the senior institution's requirements for health and life sciences majors. The curriculum also includes pertinent course work in the humanities and social sciences.

Students enrolling in this transfer program should be aware of the course requirements and applications of transfer credits at the institutions to which they are considering transferring.

Working closely with the academic advisor and dean of business, computer, and office information technologies/director of transfer, a student will be able to tailor a program of study to fit the requirements of the desired transfer institution. It is the student's responsibility to meet requirements of a program and the needs in regards to transfer.

Information regarding transfer of credits to various colleges and universities is available through the dean of humanities and social sciences or the transfer counselor.

ASSOCIATE OF SCIENCE: HEALTH OR BIOLOGICAL SCIENCES TRANSFER

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Semester III	Semester IV
CIS101 Microcomputer Concepts & Applications 3	ENG102 English Composition II 3	Free Elective 3	COM101 Public Speaking 3
CSS100 Series Student selection with advisor approval 3	MTH121 College Trigonometry 3	Humanities Elective I *** 3	Humanities Elective II*** 3
ENG101 English Composition I 3	PSY101 General Psychology 3	MTH128 Statistics OR MTH224 Calculus for Business & Life Sciences 3-4	Science Elective ** 3-4
MTH120 College Algebra 3	Science Elective II* 4	Psychology Elective 3	Science Elective ** 3-4
Science Elective I * 4	SOC201 Introduction to Sociology 3	Science Elective ** 3-4	Social Science Elective 3
Credits 16	Credits 16	Credits 15-17	Credits 15-17

62-66 Semester Credits

A list of general studies electives can be found on page 156. The elective course descriptions are found in the course description guide of this catalog. **Elective selectives are critical; therefore an appointment with the transfer counselor is essential.**

Outcomes: A student graduating with an Associate of Science Degree can expect to have increased social awareness, communication skills, problem-solving and computation/computer literacy skills.

* Science Elective I

BIO114 and BIO115; or CHM102 and CHM103; or PHY106 and PHY107

** Science Elective

BIO102	BIO200	BIO205	PHY106
BIO103	BIO201	CHM102	PHY107
BIO114	BIO203	CHM103	
BIO115	BIO204	CHM201	

*** Refer to humanities sequence requirements on page 156.

Student must obtain a letter grade of C or better in all courses with this symbol to progress to graduation/certification.

CLINICAL LABORATORY TECHNICIAN (AAS)

STARTS FALL SEMESTER AND DAY PROGRAM

The clinical laboratory technician (CLT) aids the physician in the diagnosis and treatment of disease by performing a wide variety of complex diagnostic tests in a laboratory setting under the supervision of the clinical laboratory scientist, pathologist, or physician.

The applicant interested in the CLT Program is encouraged to take chemistry, sciences, and advanced mathematics courses in high school.

CLT Program application/admissions criteria are identified on page 15 in this catalog.

Facilities for a practicum at the end of the second year are based on the number of available openings in cooperating agencies. Some of these facilities are located outside the immediate area, which may necessitate obtaining temporary residence.

The CLT graduate performs routine laboratory procedures in the area of microbiology, blood banking, chemistry, immunology/serology, hematology, and urinalysis in hospitals, clinics, and independent laboratories. Following completion of the associate degree requirements, the CLT graduate is eligible to sit for the certification examination offered by the National Certification Agency for Medical Laboratory Personnel or the American Society of Clinical Pathologists. The successful candidate merits the right to use the title of CLT(NCA) or MLT(ASCP).

Upon completion of the Clinical Laboratory Technician Program, the graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills with patients, co-workers, and other health care professionals.
2. Follow prescribed safety procedures in all areas of the laboratory and patient contact.

3. Perform, monitor, record, and evaluate quality control and patient results within predetermined parameters to prescribe trouble-shooting and corrective strategies.
4. Perform, validate, interpret, and record routine analytical procedures on blood and other biological specimens using automated equipment and/or manual methods, basic scientific principles and relating results to disease processes.
5. Collect, process, log, and preserve all specimens for lab testing.
6. Meet requirements to take the national certifying examination for medical laboratory technician.

The CLT program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mowr Ave., Suite 670, Chicago, Ill., (773) 714-8880.

ESSENTIAL FUNCTIONS

Essential functions include requirements that students be able to engage in during educational and training activities in such a way that will not significantly increase the occupational hazards affecting either the handicapped person, employees, other students, the general public, or the facilities in which the work is to be performed.

Standards and Functions

1. Vision

The student must be able to read charts and graphs, read instruments, scales, discriminate colors, read microscopic materials, and record results.

2. Speech Hearing

The student must be able to communicate effectively and accurately in order to elicit information. Must be able to assess non-verbal communication, and be able to adequately transmit information to all members of the health care team.

3. Fine Motor Functions

The student must perform all fine motor functions necessary to safely and accurately perform diagnostic procedures, and to manipulate tools, instruments, and equipment.

4. Psychological Stability

The student must possess the psychological stability required to be able to respond quickly and efficiently in a manner appropriate to the situation.

TRANSFER OPPORTUNITY

Jefferson Community College has an agreement with West Liberty State College for certified CLT graduates to continue their studies to obtain a bachelor's degree in clinical laboratory science or biotechnology. Also, the University of Cincinnati and Youngstown State University offer online bachelor degrees for certified CLT graduates. The program director has transfer details.

CLINICAL LABORATORY TECHNICIAN

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Summer I	Semester IV	Semester V	Summer II
BIO114 Principles of Biology I 4	BIO102 Human Anatomy/ Physiology 4	CHM201 Organic Chemistry 4	CLT201 Immunohematology 4	CLT205 Clinical Microbiology II 4	CLT207 CLT Practicum/Seminar 3
CHM102 General Chemistry I 4	CLT102 Immunology/ Serology 4	ENG102 English Composition II 3	CLT202 Analysis of Body Fluids 2	CLT206 Directed Clinical Practice 1	
CLT101 Introduction: Clinical Laboratory Science 3	CLT103 Hematology/ Coagulation 6		CLT203 Clinical Chemistry 6	CLT208 CLT Seminar I 2	
ENG101 English Composition I 3	CHM103 General Chemistry II 4		CLT 204 Clinical Microbiology I 4	COM101 Public Speaking OR COM105 Interpersonal Communications 3	
				PSY101 General Psychology 3	
Credits 14	Credits 18	Credits 7	Credits 16	Credits 13	Credits 3

71 Semester Credits

See course descriptions for prerequisites and corequisites.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see CLT Handbook) to progress to graduation/certification.

DENTAL ASSISTING (AAS AND CERTIFICATE)

DENTAL ASSISTING EXPANDED FUNCTIONS (CERTIFICATE)

STARTS FALL SEMESTER DAY PROGRAM

A dental assistant works in a variety of office situations, both specialty and general practice, or in a dental clinic, hospital or in the armed forces, performing office and clinical assisting duties. Duties can include: assisting the dentist with examinations and fillings; preparing instruments; exposing radiographs; maintaining infection control; performing laboratory procedures; and performing reception and office management procedures.

The Dental Assisting Program is designed to provide the student with three dental career options leading to or enhancing employment in a dental office or dental clinic. Basic science courses prior to enrolling are encouraged; typing/computer course is required. (Passing grade in high school typing/computer course is acceptable.)

Dental Assisting Program application/admissions criteria are identified on page 15 in this catalog.

The one-year certificate option provides the student with opportunities to acquire knowledge in the area of dental terminology, dental materials, radiography, and chairside assisting. Classroom sessions are complemented by planned practical experiences in the college laboratory and dental offices. Upon successful completion of the one-year certificate program, the student will be eligible to sit for the National Certification Examination or the Ohio Dental Assistants Examination to become a certified dental assistant.

To be eligible for the national examination, a person must graduate from an accredited institution and have a current registration in CPR. Those successfully completing the examination are permitted to use the initials CDA following their names.

The CDA who desires to continue her/his education in dental assisting can enroll in second-year courses leading to an Associate Degree of Applied Science, Dental Assisting, as a second option. Courses in general studies and technically related courses are included in the second year for the student who wishes to further his/her education.

The third option leads to a certificate in dental assisting with the potential credentials of Expanded Functions Dental Auxiliary (EFDA). This option is available to the certified dental assistant (CDA), registered dental hygienist (RDH), or Ohio certified dental assistant (CODA) who may be working full time and is interested in learning expanded restorative procedures in the college's dental clinic under the direct supervision of a licensed dentist. This program is designed for the part-time student who can attend classes two evenings and/or one eight-hour day a week in fall and spring semesters. Upon successful completion of the dental assisting restorative courses, the student qualifies to sit for the state of Ohio EFDA Examination. If successful on the state's written and practical exam, the graduate is permitted to use the EFDA initials following his/her name. **Students who have failed to pass the EFDA State Board more than two times are required by the state to retake the EFDA program. These applicants will be granted re-admission into Jefferson Community College's EFDA program only once.**

Upon completion of the dental assisting program options, the graduate will be able to:

1. Demonstrate a conduct of ethical, legal, and professional standards in personal, clinical, and patient care.
2. Demonstrate interpersonal communication skills with patients, dental health teams, and other related health professionals.
3. Utilize library resources specific to dental assisting.
4. Meet requirements to take the state and/or national certification examination.
5. Practice proper infection control as well as personal, clinical, and patient safety in all aspects of dentistry.
6. Use problem-solving skills gained from basic sciences in dental health care.

DENTAL ASSISTING (ASSOCIATE)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Summer *	Semester III	Semester IV
BIO101 Basic Anatomy 2	DAS106 Chairside Assisting 2	DAS201 Dental Assisting Seminar 1	BIO102 Human Anatomy/ Physiology 4	CHM102 General Chemistry I 4
DAS101 Introduction: Dental Assisting 1	DAS107 Dental Materials II 3	DAS202 Dental Assisting Practicum 1	ENG102 English Composition II 3	COM101 Public Speaking 3
DAS102 Dental Sciences 4	DAS108 Dental Anatomy 3	ENG101* English Composition I 3	MTH128 Statistics 3	SOC101 Introduction to Sociology 3
DAS103 Preventive Dentistry 2	DAS109 Dental Radiology 4	PSY101* General Psychology 3		Technically Related Elective** 3-4
DAS104 Dental Materials I 3	DAS110 Clinical Education 2			
DAS105 Chairside Assisting I 4	DAS111 Dental Administrative Procedures 2			
HSC102 First Aid/CPR 1				
Credits 17	Credits 16	Credits 8	Credits 10	Credits 13-14

64-65 Semester Credits

See typing requirements identified on page 15. **See course descriptions for prerequisites and corequisites.**

*To be eligible to enroll in summer DAS201 and DAS202, the student must satisfy all courses in the preceeding Semester I and Semester II with a minimum of a "C" average in each course; ENG101, and PSY101 must be satisfied or taken concurrently with practicum and seminar courses.

** Technically Related Electives

BIO103 BIO114 BIO203 BIO204 BIO205

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Dental Assisting Handbook) to progress to graduation/certification.

DENTAL ASSISTING (CERTIFICATE)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Summer*
BIO101 Basic Anatomy 2	DAS106 Chairside Assisting II 2	DAS201* Dental Assisting Seminar 1
DAS101 Introduction: Dental Assisting 1	DAS107 Dental Materials II 3	DAS202* Dental Assisting Practicum 1
DAS102 Dental Sciences 4	DAS108 Dental Anatomy 3	ENG101 English Composition I 3
DAS103 Preventive Dentistry 2	DAS109 Dental Radiology 4	PSY101 General Psychology 3
DAS104 Dental Materials I 3	DAS110 Clinical Education 2	
DAS105 Chairside Assisting I 4	DAS111 Dental Administrative Procedures 2	
HSC102 First Aid/CPR 1		
Credits 17	Credits 16	Credits 8

41 Semester Credits

See typing requirements identified on page 15. **See course descriptions for prerequisites and corequisites.**

* To be eligible to enroll in summer DAS201 and DAS202, the student must satisfy all courses in the preceeding Semester I and Semester II with a minimum of a "C" average in each course; ENG101, and PSY101 must be satisfied or taken concurrently with practicum and seminar courses.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Dental Assisting Handbook) to progress to graduation/certification.

EXPANDED FUNCTIONS DENTAL AUXILIARY (EFDA)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
DAS203 Expanded Assisting I 3	DAS204 Expanded Assisting II 2
	DAS205 Directed Clinic Practice 1

Credits 3

Credits 3

6 Semester Credits

Two semesters of part-time enrollment are required to complete EFDA courses and on-campus clinic practice. Only eligible candidates can enroll in EFDA courses. Requirements for entrance are Certified Dental Assistant (CDA), Registered Dental Hygienist (RDH) or Certified Ohio Dental Assistant (CODA); also two years working experience, Ohio radiographer license and proof of hepatitis vaccination. **See course descriptions for prerequisites and corequisites.**

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Dental Assisting Handbook) to progress to graduation/certification.

Students who have failed to pass the EFDA State Board more than two times are required by the state to retake the EFDA program. These applicants will be granted re-admission into Jefferson Community College's EFDA program only once.

EMT-PARAMEDIC (CERTIFICATION)

EMT INTERMEDIATE (CERTIFICATION)

STARTS SUMMER EVENING PROGRAM

The Emergency Medical Services Technology Program offers the licensed EMT-A with one year of active squad experience an opportunity to enroll in courses leading to the EMT-Intermediate (EMT-I) or EMT-Paramedic (EMT-P) status. The EMT-I program is a flexibly scheduled course. The EMT-P Program involves two semesters and two summer sessions.

EMT Program application/admissions criteria are identified on page 15 in this catalog.

The student admitted to the college and desiring acceptance to the EMT-I and EMT-P programs must satisfy college admission requirements and:

1. Be at least 18 years of age;
2. Be a licensed Ohio EMT-A;
3. Be an active EMT-A for one year prior to entrance into the program;
4. Provide official forms to document dates of recent tetanus immunization, TB test or chest X-ray, hepatitis vaccine, and physical examination prior to clinical experience;
5. Report as requested for personal interview with the EMT-P program director;
6. Not be currently charged with, incarcerated for, and/or on parole/probation for a felony charge.

While in supervised clinical training and after employment, the paramedic works under the direction of a physician. Knowing that the paramedic is a direct extension of the hospital-based physician, the EMT-P can serve as the physician's eyes, ears, and hands in the street or in the home -- anywhere that EMS is needed.

Essential attributes of the EMS candidate include demonstration by testing of academic potential, good physical health, the ability to relate well to people with calm, confident and rational judgment,

and a thorough understanding of the operation of the EMS system. The EMT is a needed professional in pre-hospital care.

Given the knowledge, skill, and field experience, the EMT-Paramedic graduate will be able to:

1. Perform routine basic life support skills, including personal safety.
2. Initiate appropriate intravenous procedures as authorized by medical command or protocol.
3. Demonstrate professional conduct and interpersonal communication skills with patients, co-workers, and other health care professionals.
4. Decide priorities of emergency treatment according to scene and assessment findings.
5. Record and communicate data effectively to medical authority.
6. Initiate and continue pre-hospital care under medical control, including the recognition of present conditions, assessment of the patient and initiation of appropriate therapies.
7. Perform lifesaving skills authorized by medical control in trauma and medical emergencies.
8. Evaluate and adjust the treatments according to patient response.
9. Meet the state of Ohio/National Registry requirements of the EMT-Paramedic examination.

A physical examination and proof of specific immunizations are required at the student's expense prior to clinical practicums.

Upon successful completion of the program, the graduate receives a certificate of completion and is eligible to apply for the National Registry Examination being offered as the state of Ohio examination.

NONCREDIT EMERGENCY MEDICAL SERVICES (EMS) TRAINING

Emergency Medical Technician -

Basic (EMT-B)

Recertification classes for:

EMT-Basic, EMT-Intermediate, and EMT-Paramedic

Emergency Vehicle Operations

First Responder Training

American Heart Association -

Basic Life Support (BLS) courses
BLS Instructor Training courses
Advanced Cardiac Life Support (ACLS) courses
Pediatric Advanced Life Support (PALS) courses

Basic Trauma Life Support (BTLS)

Specific courses in first aid, auto extrication, vehicle rescue, farm extrication, etc. are available upon request.

All courses can be offered at off-campus locations subject to minimum student participation and Ohio Department of Public Safety regulations. Interested residents may contact the Department of Health Sciences for further information and/or the development of specialized EMS training needs.

EMT-PARAMEDIC CERTIFICATION

SUGGESTED COURSE SEQUENCE

Summer

EMS107* Anatomy and Physiology for Paramedicine
--

3

Credits 3

Semester I**Semester II****Summer**

EMS108 Paramedic Theory and Practice I	EMS109 Paramedic Theory and Practice II	EMS110 Paramedic Theory and Practice III
10	10	5

Credits 10

Credits 10

Credits 5

28 Semester Credits

* Prerequisite for EMT-Paramedic Program Admission.

Student must obtain a letter grade of C or better in all courses with this symbol (see EMT Handbook) to progress to graduation/certification.

EMT-INTERMEDIATE CERTIFICATION**Summer**

EMS106 EMT Intermediate Course
--

4

Credits 4

4 Semester Credits

MEDICAL ASSISTING TECHNOLOGY (AAS AND CERTIFICATE)

STARTS FALL SEMESTER DAY AND EVENING PROGRAM



*"The teachers
are easy to reach
if I need them
to answer
questions."*

JIM HRANEK
Steubenville

The medical assistant performs a variety of administrative duties dependent upon the physician's practice and unique office requirements. The duties may include acting as a secretary, bookkeeper, and receptionist; answering incoming calls; receiving mail; greeting patients; handling correspondence and filing; arranging for laboratory and X-ray procedures or hospital admissions; taking histories; and maintaining patient records, accounts and billing.

The clinical duties of a medical assistant include preparing patients and assisting the physician with examinations or treatment; measuring height and weight; and taking vital signs. The assistant may perform certain laboratory tests, take X-rays or EKGs, or assist with diagnostic and minor surgical procedures and the administration of injections or other medications.

Applicants are encouraged to take basic science, mathematics, and typing courses in high school or prior to entering the program. College courses in typing or OIT102 Keyboarding/Speed Building, BUS111 Business Math, and HSC101 Medical Terminology are **required** prior to Semester I.

Medical Assisting Program application/admissions criteria are identified on page 15 in this catalog.

Qualified students are enrolled in the one-year accelerated certificate program. Upon successful completion of the certificate program, the student may complete the required credits for the Associate of Applied Science Degree in Medical Assisting in the day or evening.

Upon completion of the Medical Assisting Program, the graduate will be able to:

1. Perform entry-level clinical procedures.
2. Perform entry-level administrative procedures.
3. Perform entry-level general procedures.
4. Meet requirements to sit for the AAMA basic certification examination.

A student qualifies to sit for the AAMA Basic Certification Examination upon completion of the one-year certificate program. Candidates for the Basic Certification Examination are required to pass the entire examination in one attempt. If successful, a certified medical assistant certificate will be issued, and the initials CMA may be used. If a candidate for the examination is not successful on the first attempt, the entire exam may be repeated. The exam is administered three times a year: January, October, and June.

The minimum length of enrollment as a full-time student to complete the accelerated certificate program is two semesters plus a summer term.

MEDICAL ASSISTING (CERTIFICATE)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Summer
BIO101 Basic Anatomy 2	BIO201 Pathophysiology 3	COM101 Public Speaking OR COM105 Interpersonal Communications 3
HSC102 First Aid/CPR 1	ENG101 English Composition I 3	MAS104 Medical Assisting Seminar 1
HSC103 Law and Ethics 1	HSC104 Medical Insurance 2	MAS105 Medical Assisting Practicum 2
HSC106 Business Administration- Health Office 3	MAS102 Medical Assisting Clinical Skills 4	
MAS101 Introduction: Medical Assisting 4	MAS103 Medical Assisting Laboratory Skills 2	
OIT202 Introduction to Word Processing 2	PSY101 General Psychology 3	

Credits 13

Credits 17

Credits 6

43 Semester Credits*

*Successful completion of BUS111, HSC101, and OIT102 are required prior to Semester I. These credits are included in the total.

See course descriptions for prerequisites and corequisites.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Medical Assisting Handbook) to progress to graduation/certification.

MEDICAL ASSISTING (ASSOCIATE)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Summer	Semester III	Semester IV
BIO101 Basic Anatomy 2	BIO201 Pathophysiology 3	COM101 Public Speaking OR COM105 Interpersonal Communications 3	BIO102 Human Anatomy/ Physiology 4	BIO103 Nutrition 3
HSC102 First Aid/CPR 1	ENG101 English Composition I 3	MAS104 Medical Assisting Seminar 1	ENG103 Business Composition 3	HIM214 CPT-4 Procedural Coding 3
HSC103 Law and Ethics 1	HSC104 Medical Insurance 2	MAS105 Medical Assisting Practicum 2	HIM103 Introduction to Coding Systems 3	
HSC106 Business Administration- Health Office 3	MAS102 Medical Assisting Clinical Skills 4		General Studies Electives* 3	
MAS101 Introduction: Medical Assisting 4	MAS103 Medical Assisting Laboratory Skills 2			
OIT202 Introduction to Word Processing 2	PSY101 General Psychology 3			
Credits 13	Credits 17	Credits 6	Credits 13	Credits 6

62 Semester Credits**

* A list of general studies electives can be found on page 156.

**Successful completion of BUS111, HSC101, and OIT102 are required prior to Semester I. These three courses are included in the total.
See course descriptions for prerequisites and corequisites.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Medical Assisting Handbook) to progress to graduation/certification.

MEDICAL OFFICE MANAGEMENT (CERTIFICATE)

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
ACC101 Financial Accounting I 4	ACC102 Financial Accounting II 4
BUS203 Legal Environment of Business 3	CIS222 Microsoft Excel 2000 3
MGT208 Human Resources Management 3	MGT202 Organizational Behavior 3
MTH128 Statistics 3	MGT210 Leadership Development/ Team Building 3
Credits 13	Credits 13

26 Semester Credits

The Medical Office Management Certificate Program provides college-level preparation for a career as an office manager in a medical outpatient setting.
An associate degree in medical assisting must be completed prior to this certificate.

PHLEBOTOMY TECHNICIAN (CERTIFICATE)

EVENING PROGRAM

The Phlebotomy Technician (PBT) is a person trained to obtain blood specimens by venipuncture and capillary puncture techniques. Phlebotomy involves the correct identification of the patient prior to sample collection and proper labeling of the specimen after collection. The phlebotomist must select the appropriate specimen container(s) for the specified test(s) and collect the appropriate amount of blood by venipuncture (vacuum tube, needle and syringe or butterfly) or dermal puncture for each test.

Receipt, transportation, processing and handling of specimens other than blood (urine, throat cultures, etc.) may also be the responsibility of the phlebotomist since they serve as an extension of the clinicallaboratory.

In addition to technical, clerical and interpersonal skills, the phlebotomist must develop strong organizational skills to efficiently handle a heavy workload and maintain accuracy, often under stressful conditions. Performance of computer operations and record keeping are also required.

PBT Program application/admissions criteria are identified on page 15 in this catalog.

Clinical facilities for PLB102 Phlebotomy Practicum/Seminar are based on the number of available openings in cooperating agencies. Some of these facilities are located outside the immediate area, which may necessitate obtaining temporary residence.

Following the completion of the certificate degree requirements, the PBT graduate is eligible to sit for the certification examination offered by the National Credentialing Agency for Laboratory Personnel or the American Society of Clinical Pathologists.

Upon completion of the Phlebotomy Technician Program, the graduate will be able to:

1. Demonstrate professional conduct and interpersonal communication skills with patients, co-workers, and other health care professionals.
2. Follow prescribed safety procedures in all areas of the laboratory and patient contact.
3. Collect, process, log and preserve all specimens for lab testing.
4. Meet requirements to take the national certifying examination for phlebotomy technician.

The PBT program has applied for accreditation by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 8410 West Bryn Mowr Ave., Suite 670, Chicago, Ill., (773) 714-8880. Accreditation is pending.

ESSENTIAL FUNCTIONS

Essential functions include requirements that students be able to engage in during educational and training activities in such a way that will not significantly increase the occupational hazards affecting the handicapped person, employees, other students, the general public, or the facilities in which the work is to be performed.

Standard and Functions

1. *Manual Dexterity*
Ability to use hand(s) or prosthetic devices with coordination.
2. *Fine Motor Skills*
Ability to manipulate small objects with fingertips or adaptive devices.
3. *Mobility*
Ability to maneuver in the laboratory and patient-care settings.
4. *Vision*
Ability to distinguish red, yellow and blue colors.
5. *Speech and Hearing*
Ability to communicate effectively and accurately in order to elicit information. Must be able to assess non-verbal communication and be able to adequately transmit information to all members of the health care team.
6. *Reading and Writing*
Ability to communicate effectively in the written form and read, understand and follow directions in English.
7. *Psychological Stability*
Possess the psychological stability required to be able to respond quickly and efficiently in manner appropriate to the situation.

TRANSFER OPPORTUNITIES

The certified PBT graduate has the opportunity to obtain an associate degree in Clinical Laboratory Technician at JCC with additional classes.

PHLEBOTOMY TECHNICIAN

SUGGESTED COURSE SEQUENCE

Semester I	Semester II
PLB101 Phlebotomy 3	PLB102 Phlebotomy Practicum/Seminar 5
Credits 3	Credits 5

8 Semester Credits

See course descriptions for prerequisites and corequisites.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see PBT Handbook) to progress to graduation/certification.

PRACTICAL NURSING (CERTIFICATE)

STARTS SUMMER SESSION DAY PROGRAM



*"I have learned
a lot and I
have enjoyed
everything."*

JESSICA RAE MCCOY
Follansbee

The one-year certificate in practical nursing is a self-contained course of practical nursing education, designed to meet the need in nursing services for a worker who will share in direct patient care. The program graduate is prepared to give safe, competent nursing care within a select range of patient-care situations at the direction of the registered nurse and/or licensed physician.

Practical Nursing Program application/admissions criteria are identified on page 15 in this catalog.

The individual who successfully completes all program requirements is awarded a certificate in practical nursing and is eligible to sit for the National Council Licensing Examination for Practical Nurses (NCLEX-PN). Successful passing of this exam merits the graduate the right to apply for state licensure as a licensed practical nurse and use the initials LPN.

Upon completion of the certificate in practical nursing, the graduate will be able to:

1. Use effective communication skills with clients and health team members.
2. Utilize the nursing process when delivering nursing care to meet the client's physical and psychosocial needs while adhering to the ethical principles and legal framework inherent to practical nursing.
3. Demonstrate technical proficiency in the nursing skills necessary to fulfill the role of an entry-level practical nurse.
4. Provide the client with a safe, effective environment.
5. Meet requirements for the NCLEX-PN and NAPNES pharmacology challenge exam.

PRACTICAL NURSING

SUGGESTED COURSE SEQUENCE

Summer	Semester I	Semester II
BIO102 Human Anatomy/Physiology 4	PNR102 Practical Nursing Fundamentals 6	PNR106 Medical/Surgical Nursing II 6
BIO103 Nutrition 3	PNR103 Gerontological Nursing 3	PNR107 Maternal/Child Health Nursing 7
ENG101 English Composition I 3	PNR104 Medical/Surgical Nursing I 4	
PNR101 Introduction: Practical Nursing 2	PNR105 Growth and Development 2	
PSY101 General Psychology 3		
Credits 15	Credits 15	Credits 13

43 Semester Credits

The student **MUST** submit verification of current American Heart Association Health Care Provider CPR Certification to program director prior to the start of Semester II. HSC102 First Aid/CPR courses are offered each semester and summer for student enrollment.

See course descriptions for prerequisites and corequisites.

Following student acceptance/enrollment, the student must complete a criminal records check by the Ohio Bureau of Criminal Identification and Investigation. The bureau will forward this information to the Ohio Board of Nursing.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Practical Nursing Handbook) to progress to graduation/certification.

RADIOLOGIC TECHNOLOGY (AAS)

STARTS FALL SEMESTER DAY PROGRAM

The mission of the college is to provide a center of learning that enriches lives, connects with students, promotes diversity, builds communities, and educates for tomorrow through career, transfer, workforce, and community education. The mission of the Radiologic Technology Program is to provide quality education in the radiographic sciences by proficient instruction, effective testing and utilization of a competency-based clinical education plan.

A radiologic technologist or medical radiographer assists a radiologist (M.D.) in the detection, diagnosis, and treatment of disease and injury through the use of X-rays in hospitals, clinics, and other health agencies. Knowledge of human anatomy is essential to correctly position a patient in order to obtain accurate radiographs. An understanding of radiation exposure (proper voltage, current, exposure time, and equipment) is necessary to obtain quality results and ensure the safety of both patient and technologist. **Continuous standing, equipment manipulation, lifting of non-ambulatory patients, and effective communication skills are required to work proficiently, often in an emergency situation.**

Required high school courses include algebra and two sciences. Physics is strongly recommended. Other recommended courses include Algebra II, geometry, trigonometry, anatomy and physiology, computer science, biology, and chemistry.

Radiologic Technology Program application/admissions criteria are identified on page 15 in this catalog.

Facilities for clinical education include the Trinity Medical Center West, Weirton Medical Center and East Ohio Regional Hospital. Each student is assigned to a hospital in the first fall semester of the program; clinical education begins in the sixth week. During the next three semesters and two summer sessions, the student will spend two to five clinical days (7 a.m. to 3:30 p.m.) per week in the assigned hospital. The second-year student occasionally is assigned afternoon or evening clinical rotations. A copy of the Joint Review Committee on Education in Radiologic Technology's "Standards" for an accredited educational program in radiologic sciences is available at the college through the office of the program director.

The graduate is eligible to take the registration examination sponsored by the American Registry of Radiologic Technologists (ARRT) upon completion of the associate degree requirements. The successful completion of the ARRT examination allows the graduate to use the initials R.T. (R) (American Registered Technologist in Radiography) after his/her name.

The goals of the Radiologic Technology Program are

1. The program will graduate students with the knowledge and skills of an entry-level radiographer.
2. Students will demonstrate abilities in communication, critical thinking, and problem-solving necessary for professional practice.
3. Students will develop and apply professional attitudes, behaviors, and ethics.

RADIOLOGIC TECHNOLOGY PROGRAM CLINICAL EDUCATION SCHEDULE

First Year*

Semester I -- Fall

8 hours per week for 9 weeks =
72 hours

Semester II -- Spring

16 hours per week for 15 weeks =
240 hours

Summer Session I

16 hours per week for 5 weeks =
80 hours

Summer Session II

40 hours per week for 5 weeks =
200 hours

Second Year*

Semester III -- Fall

24 hours per week for 15 weeks =
360 hours

Semester IV -- Spring

24 hours per week for 15 weeks =
360 hours

Summer Session I

24 hours per week for 5 weeks =
120 hours

Due to the risk of radiation to an unborn fetus, especially during the first trimester, any student who becomes pregnant during the program should inform the program director immediately. If the student voluntarily states that she is pregnant then she will be advised about any revisions in her clinical schedule needed to ensure protection for both mother and child, as well as attainment of academic/program clinical competencies. The student's time in the program may need lengthened to ensure that all competencies and requirements are achieved prior to graduation. The student will be provided with an additional film badge, at her own expense, to be worn waist level which will monitor any radiation exposure during the pregnancy.

RADIOLOGIC TECHNOLOGY

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Summer	Semester III	Semester IV	Summer I
BIO102 Human Anatomy/ Physiology 4	CIS100 Series Student selection with advisor approval 3	ENG101 English Composition I 3	ENG104 Technical/Professional Writing 3	COM101 Public Speaking 3	RAD206 Clinical Education VI 1
HSC102 First Aid/CPR 1	RAD105 Radiography I 4	PSY101 General Psychology 3	RAD201 Radiography II 4	HSC101 Medical Terminology 2	
RAD101 Introduction: Radiography 1	RAD106 Radiographic Procedures II 5	RAD108 Clinical Education III 2	RAD202 Radiologic Physics 3	HSC111 Routine Venipuncture 1	
RAD102 Radiographic Procedures I 4	RAD107 Clinical Education II II 2		RAD203 Clinical Education IV 4	HSC112 Special Phlebotomy Procedures 1	
RAD103 Clinical Education I 1				RAD204 Radiography III 3	
RAD104 Methods of Patient Care 2				RAD205 Clinical Education V 4	
Credits 13	Credits 14	Credits 8	Credits 14	Credits 14	Credits 1

64 Semester Credits

See course descriptions for prerequisites and corequisites.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Radiology Technology Handbook) to progress to graduation/certification.

RESPIRATORY THERAPY (AAS)

STARTS FALL SEMESTER DAY PROGRAM



"This college has helped to prepare me with classes to be ready to transfer."

ANNA D'ANDREA
Wintersville

The Respiratory Therapy Program is designed to prepare graduates to participate in patient assessment, perform diagnostic testing, administer therapeutic treatments, maintain patient ventilation through mechanical support, and participate in the rehabilitation of patients with pulmonary disease. Students and graduates will participate in the treatment and care of patients of every age in a variety of locations. This profession requires an ability to interact and communicate effectively with patients and other health professionals. The respiratory therapist must be able to establish and maintain a rapport with patients, demonstrate an ability to work with mechanical systems, and work with others as part of the health care team.

Preferred high school course work includes algebra, chemistry, and one additional science. Other recommended course work includes Algebra II, biology, geometry, anatomy and physiology.

Respiratory Therapy Program application/admissions criteria are identified on page 15 in this catalog.

Upon successful completion of this program, the graduate will be eligible to sit for both the entry-level certification, written and clinical simulation registry examinations of the National Board for Respiratory Care (NBRC). Successful completion of the entry-level and advance practitioner examinations will entitle the graduate to use the Certified Respiratory Therapist (CRT) and Registered Respiratory Therapist (RRT) credentials, respectively. In March 1990, Ohio law mandated licensure to practice as a respiratory therapist.

Upon completion of the Respiratory Therapy Program, the graduate will be able to:

1. Demonstrate the ability to comprehend, apply, and evaluate clinical information relevant to the role as registered respiratory therapy practitioner.
2. Demonstrate technical proficiency in all skills necessary to fulfill the role as a registered respiratory therapy practitioner.
3. Demonstrate personal behaviors consistent with professional and employer expectations for the registered respiratory therapy practitioner.

RESPIRATORY THERAPY

SUGGESTED COURSE SEQUENCE

Semester I	Semester II	Summer	Semester III	Semester IV
BIO102 Human Anatomy/ Physiology 4	CHM102 General Chemistry I 4	CIS100 Series Student selection with advisor approval 3	COM101 Public Speaking 3	RES204 Critical Care II 4
BIO105 Cardiopulmonary/ Renal Anatomy/ Physiology 5	ENG101 English Composition I 3	ENG104 Technical/ Professional Writing 3	RES201 Critical Care I 4	RES205 Respiratory Seminar 1
HSC102 First Aid/CPR 1	HSC101 Medical Terminology 2	PSY101 General Psychology 3	RES202 Cardiopulmonary Pathology 2	RES206 Clinical Application IV 6
RES101 Introduction: Respiratory Therapy 4	RES102 Basic Respiratory Therapeutics 4	RES105 Cardiopulmonary Diagnostics/ Rehabilitation 2	RES203 Clinical Application III 4	
General Studies Elective 3	RES103 Cardiopulmonary Pharmacology 2	RES106 Clinical Application II 1		
	RES104 Clinical Application I 2			
Credits 17	Credits 17	Credits 12	Credits 13	Credits 11

70 Semester Credits

See course descriptions for prerequisites and corequisites.

Student must obtain a letter grade of P (pass), or C or better in all courses with this symbol (see Respiratory Therapy Handbook) to progress to graduation/certification.

GENERAL STUDIES ELECTIVES

This list of general studies electives is offered by Jefferson Community College on a recurring basis. All electives may not be offered every semester, and it is extremely important that the student works with an advisor or the director of transfer to establish a sequence of courses which will: 1) allow the student to complete course work at Jefferson Community College in a timely manner; and 2) ensure with some degree of confidence that the program completed will allow the student to transfer to his/her selected four-year institution with junior status. In some instances this may not be possible, but with prior planning and pre-developed agreements between the student and the gaining institution, many problems will be avoided.

Humanities

ART101 Survey of Art History
 ART102 Fundamental Drawing
 ART103 Fundamental Painting
 ART104 Art History I
 ART105 Art History II
 ART107 Photography
 ART108 Two-Dimensional Foundations
 ART111 Visual Arts Seminar
 ART121 Special Topics in Art
 ASL101 Beginning American Sign Language I
 ASL102 Beginning American Sign Language II
 ASL200 Deaf Culture
 COM101 Public Speaking
 COM105 Interpersonal Communications
 COM110 Conference and Group Discussion
 COM115 Oral Interpretation
 COM210 Advanced Presentational Skills
 COM150 Survey of Mass Media
 EDU210 Children's Literature
 ENG101 English Composition I
 ENG102 English Composition II
 ENG103 Business Communications
 ENG104 Technical & Professional Writing
 ENG121 Writing for Publication
 ENG151 Creative Writing
 ENG152 Creative Writing and Publications
 ENG155 Journalism
 ENG201 Introduction to Literature
 ENG202 Survey of World Literature
 ENG203 Special Topics in Literature
 ENG205 Women in Literature
 ENG207 Film & Literature
 ENG208 Short Stories
 ENG212 Environmental Literature
 ENG213 World Mythology
 ENG215 Social Issues in Literature
 ENG220 Modern Poetry
 ENG222 Science Fiction Literature
 ENG223 Shakespearean Plays
 ENG230 Advanced Composition and Rhetoric
 ENG251 American Literature
 ENG252 Survey of British Literature I
 ENG253 Survey of British Literature II

FRN101 Elementary French I
 FRN102 Elementary French II
 HIS101 World Civilization I
 HIS102 World Civilization II
 HIS109 History of Soviet Russia
 HIS110 History of Modern Europe
 HIS112 Great Women in History
 HIS115 Great Men in History
 HIS118 Renaissance & Reformation
 HUM121A Cultural Heritages I
 HUM121B Cultural Heritages II
 HUM121C Cultural Heritages III
 HUM240 Special Topics in Humanities
 JRN101 Basic Journalism
 JRN201 Journalism and the Media
 MGT210 Leadership and TeamBuilding
 MUS101 Music Appreciation
 MUS102 Music Fundamentals
 MUS121 Special Topics in Music
 PHI101 Introduction to Philosophy
 PHI201 History of Philosophy:
 Ancient through Modern
 PHI240 Special Topics in Philosophy
 SPA101 Elementary Spanish I
 SPA102 Elementary Spanish II
 SPA201 Intermediate Spanish I
 SPA202 Intermediate Spanish II
 THE101 Introduction to Theatre
 THE201 History of Theater
 THE240 Special Topics in Theater

Mathematics

MTH102 Survey of Mathematics*
 MTH120 College Algebra
 MTH121 College Trigonometry
 MTH128 Statistics
 MTH220 Calculus/Analytic Geometry I
 MTH221 Calculus/Analytic Geometry II
 MTH222 Calculus/Analytic Geometry III
 MTH230 Differential Equations

Science

BIO102 Human Anatomy & Physiology
 BIO103 Nutrition
 BIO106 Introduction to Biological Sciences*
 BIO114 Principles of Biology I
 BIO115 Principles of Biology II
 BIO200 Principles of Pharmacology
 BIO203 Principles of Microbiology
 BIO204 Ecology
 BIO205 Genetics
 CHM102 General Chemistry I
 CHM103 General Chemistry II
 CHM201 Organic Chemistry
 CPS101 Introduction to Computer Science
 CPS120 "C" Language
 CPS140 Visual Development Applications (JAVA)
 CPS151 Introduction to Computer Networking
 CPS152A Implementing Windows 2000 Professional
 CPS152B Implementing Windows 2000 Server

CPS153 Implementing Windows 2000 Network Infrastructure
 CPS154 Implementing Windows 2000 Directory Services
 CPS210 UNIX Operating System and muju Applications
 CPS215 Computer Operating Systems and Applications
 CPS220 Object-Oriented Programming (C++)
 CPS261 Designing Windows 2000 Directory Services Infrastructure
 CPS262 Designing A Windows 2000 Network Services Infrastructure
 CPS281 Designing A Secure Windows 2000 Network
 ELE106 Computer Networking I
 GEL111 Earth Science*
 GEL112 Geology of National Parks*
 GSC101 Introduction to Physical Science*
 GSC102 Science and Environment*
 GSC110 Energy and Society*
 PHY106 College Physics I
 PHY107 College Physics II
 PHY126 Science/Engineering Physics I
 PHY127 Science/Engineering Physics II

Social Sciences

ANT101 Anthropology
 ECO101 Macroeconomics
 ECO102 Microeconomics
 ECO105 Personal Finance
 ECO201 Money & Banking
 GEO101 World Geography
 HIS104 U.S. History-Formative Period
 HIS105 U.S. History-Modern Period
 HIS107 History of Labor in America
 MGT202 Organizational Behavior*
 PSC101 American Government
 PSC102 World Government
 PSY101 General Psychology
 PSY102 Psychology of Human Relations
 PSY201 Child Development
 PSY203 Social Psychology
 PSY205 Human Growth & Development
 PSY206 Adolescent Development
 PSY207 Adult Development
 PSY211 Abnormal Psychology
 PSY218 Personality Theories
 PSY219 Characteristics of Exceptional Children
 PSY220 Educational Psychology
 SOC101 Introduction to Sociology
 SOC110 Sociology of Marriage and Family
 SOC202 Society & Institutions
 SOC205 Social Problems
 SOC240 Special Topics in Sociology

*Not open for credit toward graduation in science, health, or engineering areas, but does count as science requirement toward the Associate of Arts Degree.

COURSE DESCRIPTION GUIDE

Courses arranged alphabetically by course code category
All courses carry a materials, participation or lab fee, see course schedule for amounts
Not all courses are offered every year

Code Index

ACC	Accounting	CSS	College Success Series	FIN	Finances	OIT	Office Information
ANT	Anthropology	DAS	Dental Assisting Technology	FOR	Forensics	PHI	Philosophy
ART	Art	DBS	Basic Skills	FRN	French	PHY	Physics
ASL	American Sign Language	DES	Design Engineering Technology	GEL	Geology	PLB	Phlebotomy
BIO	Biology	ECE	Early Childhood: Prekindergarten	GEO	Geography	POA	Peace Officers Academy (Police Academy)
BUS	Business	ECM	Electronic Commerce	GER	Geriatrics	PNR	Practical Nursing
CHM	Chemistry	ECO	Economics	GSC	General Science	PSC	Political Science
CIS	Computer Information	EDU	Education	HIM	Health Information	PSY	Psychology
CIV	Civil Engineering Technology	EGT	Engineering Technologies	HIS	History	RAD	Radiologic Technology
CJT	Criminal Justice Technology	ELE	Electrical/ Electronics Engineering	HSC	Health Sciences	REA	Real Estate
CLT	Clinical Laboratory Technology	EMS	Emergency Medical Services	HUM	Humanities	RES	Respiratory Therapy Technology
COM	Communications	ENG	English/Literature	JRN	Journalism	RET	Retailing
COR	Corrections			MAS	Medical Assisting Technology	SOC	Sociology
CPS	Computer Sciences			MCH	Mechanical Engineering Technology	SPA	Spanish
				MGT	Management	THE	Theatre
				MTH	Mathematics	WFB	Welding Fabrication
				MUS	Music		
				PED	Physical Education		

ACCOUNTING

ACC100 Office Accounting 3 Credits

This introductory accounting course covers the transactional recording of cash receipts and cash payments, banking procedures, the handling of the general ledger and the preparation of financial statements. Also included are payroll procedures and a practice set for attorneys or physicians.

Theory 3 hours

ACC101 Financial Accounting I 4 Credits

Basic accounting equation, debits and credits, and the accounting cycle are developed. Topics include the recording of routine business transactions involving sales, purchases, expenses, cash receipts and cash disbursements. Other topics include financial statement preparation, year-end closing, special journals, bank reconciliations and internal control systems.

Theory 4 hours

ACC102 Financial Accounting II 4 Credits

A continuation of ACC101, this course includes receivable and payable accounts, inventories, payroll, plant assets, partnerships, and accounting methods for corporate equity.

Theory 4 hours

Prerequisite: ACC101

ACC105 Payroll Accounting 2 Credits

This course includes coverage of federal and state payroll laws, computation of wages and salaries, mandatory and optional payroll deductions, record-keeping regulations, reporting requirements and the accounting procedures for payroll. Course culminates with the completion of a payroll project.

Theory 2 hours

Prerequisite: ACC100 or ACC101

ACC204 Introduction to Income Tax 3 Credits

Income taxes as they pertain to individuals and small business will be stressed. Topics include income inclusions and exclusions, adjustments, deductions, credits and capital transactions. Emphasis will be placed on return preparation.

Theory 3 hours

ACC211 Intermediate Accounting I 4 Credits

This course is a study of accounting theory, the underlying concepts of financial accounting and the four financial statements. Also included is a study of the time value of money and a revenue/receivables/cash cycle. Use of spreadsheet software will be integrated into the study of these topics.

Theory 4 hours

Prerequisite: ACC102

ACC212 Intermediate Accounting II 4 Credits

A continuation of ACC211, this course will cover revenue recognition topics such as percentage of completion accounting, long-term service contracts and the installment sales methods. Inventory, debt financing, equity financing, accounting for leases, and acquisition and retirement of non-current operating assets also will be covered.

Theory 4 hours

Prerequisite: ACC211

ACC215 Accounting Applications on Computers 3 Credits

This course will begin by exploring the "windows" graphical user interface and spreadsheet applications of accounting used with that interface. Students also will learn to use a commercial quality integrated accounting package that includes general ledger, accounts receivable, accounts payable, inventory and other accounting applications.

Theory 2 hours - Lab 2 hours

Prerequisite: ACC102

ACC220 Managerial/Cost Accounting I 4 Credits

This course will introduce concepts dealing with the accumulation of costs under the job order and process cost systems, cost-volume-profit analysis, variable and absorption costs, budgeting, and standard costs.

Theory 4 hours

Prerequisite: ACC102

ACC221 Managerial/Cost Accounting II 4 Credits

A continuation of ACC220, this course will introduce concepts such as decentralized operations, differential analysis, product pricing, capital investment analysis, activity-based costing, just-in-time production principles, and financial statement analysis.

Theory 4 hours

Prerequisite: ACC220

ACC241 Current Topics in Accounting 1-4 Credits

Designed for those entering the accounting profession or accounting professionals, this variable semester hour course may examine one or more of the following topics: analysis of corporate annual reports, professional ethics, legal responsibility, auditing standards and practices, accounting information systems, current popular accounting software packages, or other topics of current interest to the accounting profession.

Theory 1-4 hours

Theory and/or lab hours assigned based on topics offered

Prerequisite: ACC211, ACC215, CIS222 or consent of dean

ACC250 Accounting Practicum 2 Credits

The student has on-the-job experience under close supervision, which enables the accounting student to apply principles learned in the classroom and to gain firsthand experience of current accounting practices.

Practicum - A minimum of 210 hours

Prerequisites: ACC211, ACC215, CIS222

ACC251 Accounting Practicum Seminar 1 Credit

This seminar is taken in conjunction with ACC250. The practicum is enhanced by a discussion of practicum experiences and coverage of selected accounting topics. Guidelines for enrollment are available from program director.

Seminar 1 hour

Prerequisites: ACC211, ACC215, CIS222

ACC260 Accounting Capstone 1 Credit

This course is a culminating experience in case problem format for the student majoring in accounting. To successfully complete the course, the student will need to exhibit multiple accounting and cross-disciplinary skills. Activities will include recording typical business transactions, year-end adjustments, analysis and interpretation of computer generated financial statements, payroll maintenance, income tax and payroll tax return preparation, budgeting and report writing. The accounting system used requires the use of the program's computerized accounting software along with spreadsheet and word processing software.

Capstone 1 hour

Prerequisites: Student must have completed ACC211, ACC215, and ACC220. In addition, if not completed, students must be enrolled in ACC105, ACC204, and CIS222.

AMERICAN SIGN LANGUAGE**ASL100 Fingerspelling 2 Credits**

This course offers students the opportunity to work on expressive and receptive fingerspelling. The course will emphasize

the use of fingerspelling in context. Students will have opportunities to apply fingerspelling to contextual situations.

Theory 2 hours

ASL101 Beginning American Sign Language I 3 Credits

This course introduces the student to American Sign Language (ASL) and to the deaf culture in America. Focus is on building sign vocabulary, fingerspelling, grammar and syntax rules, facial expressions, use of personal space, mime and the development of sensitivity and awareness of the deaf community in America. The student is expected to acquire basic signing skills and sign vocabulary. This course is not designed to training the student to function as an interpreter for the deaf.

Theory 3 hours

ASL102 Beginning American Sign Language II 3 Credits

As a continuation of ASL101, this course focuses on building sign vocabulary, fingerspelling, grammar and syntax rules, facial expressions, use of personal space, mime and the development of sensitivity and awareness of the deaf community in America. The student is expected to acquire basic signing skills and sign vocabulary. This course is not designed to function as an interpreter for the deaf.

Theory 3 hours

Prerequisite: ASL101

ASL200 American Deaf Culture 3 Credits

This course is designed to introduce students to aspects of Deaf culture and community. The distinction between these two groups will be reviewed and characteristics of both will be identified. Students will learn about the language, norms of behavior, values, and traditions of deaf people. Students will learn about the changing social, linguistic, and educational conditions and attitudes influencing Deaf people throughout the past hundred years, and the achievements and accomplishments made by Deaf individuals in various professional fields. Hard of hearing and late deafened individuals involved in the Deaf community will be included. Students will learn how technology has impacted the lives of Deaf people. Also, students will learn the importance of the National Organizations of the Deaf, of the achievements of Deaf minorities including women and ethnic/racial individuals, and of Deaf advocacy groups protecting the rights of Deaf people.

Theory 3 hours

ANTHROPOLOGY**ANT101 Anthropology 3 Credits**

This course studies the development of the modern human species by surveying the major findings of physical, archeological and cultural anthropologists. Emphasis will be placed on the student's ability to discern the major principles, approaches and assumptions associated with the field.

Theory 3 hours

ART**ART101 Survey of Art History 3 Credits**

A general study and survey of art includes the nature of art, visual elements, the visual arts, history of world art, and applications of designs including crafts, industrial, graphic and computer-aided design.

Theory 3 hours

ART102 Fundamental Drawing 3 Credits

An introduction to basic drawing techniques and a study of the relationships of form and figure in sketches and long studies is made.

Theory 3 hours

ART103 Fundamental Painting**3 Credits**

This course introduces students to acrylic painting and its different capacities. Class will develop facilities in exploring abstract and representational means of expression. Emphasis will be placed on developing proficiency in color, composition and technical mastery of the medium. Slide presentations and in-class demonstrations will be used to familiarize students with artistic development and implementation.

Theory 3 hours

Prerequisite: ART108 advised

ART104 Art History I**3 Credits**

A comprehensive survey of art from prehistoric times up to the 19th century, this survey will highlight different cultures with the primary focus on the major civilization and movements in the history of art.

Theory 3 hours

ART105 Art History II**3 Credits**

A comprehensive survey of art from the beginning of the 19th century to contemporary times, this course will focus on the major figures, influences, and movements during these centuries. This course will include a component comprised of a visual approach to design.

Theory 3 hours

ART107 Photography**3 Credits**

This practical course is designed to teach skills and techniques required to understand and operate the camera. Topics will include the concepts that make lenses effective, an introduction to light-sensitive materials that make photography possible, effective techniques and tools used to control exposure, and the processing steps involved in producing usable negatives and printing them. This course is designed for anyone wanting to learn the technical aspects of camera use and black and white processing.

Theory 2 hours - Lab 2 hours

ART108 Two-Dimensional Foundations in Art**3 Credits**

This course provides students with a working knowledge of the fundamental principles and concepts of two-dimensional image-making with an emphasis on color and design theory. The class will show a relationship between this knowledge and how it applies to art and other disciplines. It could be useful for those interested in fashion, interior design, web page development or any activity that relies on the use of color and design. This will be accomplished through class demonstrations and lectures, slide presentations, group projects, class discussions and assigned projects.

Theory 3 hours

ART111 Visual Art Seminar**3 Credits**

This course is an exploration of contemporary art theory, contemporary art practice, and global art issues. Students will examine the art of the 20th century and how it has evolved into the art of the early 21st century. Special attention will be given to the changing nature of theory and technique as artists discovered new issues to explore and searched for new means of expression in the changing cultures of the late 20th and early 21st centuries.

Theory 3 hours

ART121 Special Topics in Art**3 Credits**

This course offers art topics selected by faculty that satisfy student need and humanities requirements.

Theory 3 hours

BIOLOGY**BIO101 Basic Anatomy****2 Credits**

The student is provided with an introduction to the basic structure of the human body. Anatomical terminology, organ placement and body systems are included. Anatomical charts, models and audiovisual aids are used to re-enforce material presented.

Theory 2 hours

BIO102 Human Anatomy and Physiology**4 Credits**

This course provides a detailed study of the structure and functions of the body's cells, tissues and organ systems. Laboratory activities are designed to enhance theory content.

Theory 3 hours - Lab 3 hours

Prerequisite: Minimum of a "C" in BIO101 or waiver by college placement test

BIO103 Nutrition**3 Credits**

This course will cover the six basic nutrients (carbohydrate, fat, protein, vitamins, minerals and water) and their functions in the body. The role of nutrition in the prevention and treatment of disease and the promotion of good health will be emphasized. Topics also will include nutrition standards and guidelines, eating disorders, nutrition throughout the life cycle, weight management, food safety, and current and controversial issues in human nutrition.

Theory 3 hours

BIO105 Cardiopulmonary/Renal Anatomy/Physiology**5 Credits**

A detailed discussion is provided of the anatomy and physiology of the pulmonary, cardiac and renal systems. Physiologic topics will include mechanics of breathing, pulmonary defense mechanisms, gas diffusion, gas transport, cardiac electroconductive system, circulatory system, fluid and electrolyte balance, acid-base regulation, and interaction of the pulmonary, cardiac and renal systems. This course is designed for respiratory therapy majors.

Theory 5 hours

Corequisites: BIO102, RES101

BIO106 Introduction to the Biological Sciences***4 Credits**

This is a biology survey course for the non-biology major. Topics covered in this course include the scientific method and the origins and classification of life; the anatomy of the cell; genetics and heredity; the human organism; and evolution. The course also will focus on the interactions between humans and their surrounding environment, and the effects humans have on the environment.

Theory 3 hours - Lab 2 hours

* Not open to students who have completed BIO114 and/or BIO115, and does not count toward the Associate of Science Degree as a science requirement, but does count as science requirement toward the Associate of Arts Degree

BIO112 Anatomy/Physiology**4 Credits**

This course focuses on the normal structure and function of human cells, tissues, and body systems. It is designed to meet the needs of those students majoring in nursing. Theory content is amplified in related laboratory activities.

Theory 3 hours - Lab 3 hours

Prerequisite: Trinity Health Systems School of Nursing students only

BIO114 Principles of Biology I 4 Credits

This course considers the cellular level of biological organization. Topics include the chemical and physical foundations of life, structure and function of cells, cellular organelles, bioenergetics, metabolism, photosynthesis, biosynthesis, cell division and growth, information coding and transfer, and basic Mendelian and population genetics.

Theory 3 hours - Lab 2 hours

BIO115 Principles of Biology II 4 Credits

This course addresses the biology of organisms, both plants and animals. The course will emphasize the evolutionary history of life, plant and animal diversity, the present ecological adaptations of species, and relationships among populations in various environments.

Theory 3 hours - Lab 2 hours

BIO200 Principles of Pharmacology 3 Credits

This course offers the student an introduction to metric conversions, apothecary notations, reading drug labels and the calculation of dosages. An introduction to pharmacology, accurate measurement and administration of medication, federal drug legislation, and laws governing the distribution and use of narcotics is included. Drug classifications are discussed.

Theory 3 hours

BIO201 Pathophysiology 3 Credits

This course encompasses the etiology, pathogenesis, manifestations, basic treatment and laboratory findings of select diseases of the human body. Attention is given to organic and infectious diseases, as well as immune dysfunction and neoplasia. A holistic approach to wellness and disease prevention is included.

Theory 3 hours

Prerequisite: Minimum of a "C" in BIO101 or waiver by college placement test

BIO202 Medical Microbiology 4 Credits

This course introduces the student to the basic concepts of microbiology, as well as the role of microorganisms in health and human disease and host immune responses to infection. Laboratory sessions are correlated with theory content.

Theory 3 hours - Lab 2 hours

Prerequisite: Trinity Health System School of Nursing students only

BIO203 Principles of Microbiology 4 Credits

The basic principles of microbiology, including the study of bacteria, algae, protozoa and viruses, are presented. Topics will include the structure, physiology, classification, cultivation and control of microorganisms, and their role in producing disease. The interaction of these organisms with humans and the environment is covered, including their presence in food, water and industry.

Theory 3 hours - Lab 2 hours

BIO204 Ecology 4 Credits

This course is intended for anyone who is interested in the world around them. Ecology should be a part of liberal education for it is essential that students who major in such diverse fields as economics, sociology, engineering, political sciences, history, and English have some basic understanding of ecology for the simple reason that it impacts their lives. The student will learn to appreciate or arrive at informed opinions on such highly politicized environmental issues as clean air and water, wetland preservation, endangered species, logging, ozone depletion,

global warming, flood control, after obtaining a firm grounding in ecological concepts.

Theory 3 hours - Lab 2 hours

Prerequisite: Biology transfer majors must have completed BIO114 and BIO115 before admission to this class to complete their transfer sequence, or by permission of the instructor

BIO205 Genetics 4 Credits

This course will focus on fundamentals of genetics including Mendelian Genetics, gene mapping, and non-Mendelian inheritance; DNA structure, replication and gene expression; DNA cloning and manipulation, applications of recombinant DNA technology, and the analysis of genomes, control of gene transcription and the genetics of cancer, DNA mutation and repair, chromosomal mutations; and population genetics, quantitative genetics and molecular evolution.

Theory 3 hours - Lab 2 hours

Prerequisite: Students will be required to complete BIO114 and BIO115 to fulfill the Ohio Transfer Module, or by permission of instructor

BUSINESS**BUS101 Introduction to Business 3 Credits**

This survey course introduces the student to an overall picture of American business and the opportunities it offers. Topics covered include management, human resources, forms of business ownership, union-management relations, ethics and social responsibility of business.

Theory 3 hours

BUS111 Business Math 3 Credits

This course is intended for those who need to use mathematics in the solution of practical problems. Emphasis is on percentage formulas, commission, markup, discounts and inventory. Interest, taxes and financial statements also will be covered.

Theory 3 hours

BUS201 Principles of Marketing 3 Credits

This course covers the fundamentals of modern marketing, consumer behavior, marketing strategy, product pricing, promotion and distribution.

Theory 3 hours

BUS203 Business Law I 3 Credits

The course provides a practical knowledge of the legal environment of business, contracts and sales with reference to the Uniform Commercial Code.

Theory 3 hours

BUS204 Business Law II 3 Credits

This course builds upon the concepts studied in Business Law I and deals with matters involved in everyday business transactions. Included in the coverage are the areas of negotiable instruments, bankruptcy, agency, business organizations, and governmental regulations, both in the consumer and business areas.

Theory 3 hours

Prerequisite: BUS203

BUS206 Small Business Management 3 Credits

A fundamental study of the issues, concerns and procedures of planning and operating small businesses is offered in this course.

Theory 3 hours

BUS221 Business Ethics 3 Credits
 This course will provide students with an understanding of the business system foundation encompassing various aspects of ethics in relation to the global marketplace, ecology, employee and employment issues, and consumer issues.
 Theory 3 hours
 Prerequisite: BUS101

BUS240 Special Topics in Business 1-3 Credits
 This course offers advanced business topics selected by the dean and faculty that satisfy student needs and business requirements.
 Theory 1-3 hours
 Theory and/or hours assigned based on topics offered

BUS250 Business Practicum 2 Credits
 On-the-job experience under close supervision is covered, enabling the student to apply principles learned in the classroom and to gain a firsthand experience of current business practices.
 Practicum - A minimum of 210 hours
 Prerequisite: Student must have received 30 hours of credit or have approval of program director

BUS251 Business Practicum Seminar 1 Credit
 This seminar is taken in conjunction with BUS250. The practicum is enhanced by discussions of experiences and coverage of current business management topics, including case studies and projects.
 Seminar 1 hour

CHEMISTRY

CHM091 Introduction to Chemistry* 4 Credits
 This introductory course is for the student with a limited knowledge of the basics of high school chemistry and a weak background in mathematics. Topics include the metric system, basic atomic structure, elements, compounds, mixtures, the periodic table, chemical nomenclature, stoichiometry, and the math necessary to complete calculations encountered in general chemistry. Laboratory activities reinforce theory and familiarize the student with basic laboratory equipment and techniques.
 Theory 3 hours - Lab 2 hours
 * Course not counted toward graduation

CHM100 Chemistry for Health Professionals 4 Credits
 This course includes basic chemical principles: atomic structure, periodic classification, bonding, mole concept, and stoichiometry with problem-solving. Survey of organic chemistry, and biochemistry, and their impact upon human health and development are discussed.
 Theory 3 hours - Lab 2 hours
 Prerequisite: Trinity Health Systems School of Nursing students only

CHM102 General Chemistry I 4 Credits
 Topics include structure of atoms, molecules and ions, chemical reactions and stoichiometry, acid-base reactions, solutions and gas laws. Laboratory activities reinforce theory.
 Theory 3 hours - Lab 2 hours
 Prerequisite: CHM091 and MTH099 with a minimum grade of "C" or appropriate score on college chemistry placement test

CHM103 General Chemistry II 4 Credits
 This course is a continuation of CHM102 and provides a study of chemical equilibria, thermodynamics, kinetics, the transition elements and nuclear chemistry. Laboratory activities reinforce theory.
 Theory 3 hours - Lab 2 hours
 Prerequisite: CHM102 with a minimum grade of "C"

CHM201 Organic Chemistry 4 Credits
 This course is a study of the fundamental principles of organic chemistry. Topics include structure, nomenclature and characteristic reactions for the following: saturated and unsaturated hydrocarbons, alcohols, ethers, aldehydes, ketones, carboxylic acids, amines, amides, aromatic compounds, carbohydrates, lipids, proteins and nucleic acids. Enzymes, stereoisomers, and the metabolism of carbohydrates, lipids and proteins are included. Laboratory exercises reinforce theory.
 Theory 3 hours - Lab 2 hours
 Prerequisite: CHM102, CHM103

CIVIL ENGINEERING TECHNOLOGY

CIV101 Surveying 3 Credits
 Course topics include theory of measurement and errors: surveying field notes; distance measurement; leveling theory; field procedures and computations; study of angles, bearings and azimuths; field operations with transit, level and theodolite; traversing; and traverse computations.
 Theory 2 hours - Lab 2 hours
 Prerequisites: MTH110, MTH111

CLINICAL LABORATORY TECHNOLOGY

CLT101 Introduction: Clinical Laboratory Technician 3 Credits
 An orientation to the field of clinical technology is provided including the history, ethics and present status of the profession, and its relationship to other health professions and to the patient. Laboratory equipment and OSHA/CDC safety requirements are presented. A survey of the subject matter of each division of a clinical laboratory is presented, and laboratory experiences are included. Medical terminology and mathematical calculations related to course work are included.
 Theory 2 hours - Lab 2 hours
 Lab fee includes liability coverage fee
 Prerequisite: Admission to Clinical Laboratory Technician Program

CLT102 Immunology/Serology 4 Credits
 This course provides a theoretical and practical basis for understanding the normal immune system, the role of the immune system in disease processes, and the application of immunologic techniques in the clinical laboratory. The laboratory sessions correlate with the lecture content and concentrate on immunological and serological in vitro tests.
 Theory 2 hours - Lab 4 hours
 Prerequisites: CLT101 or CHM201

CLT103 Hematology/Coagulation 6 Credits
 This course concentrates on the origin and formation of normal and abnormal blood cells and their precursors. Coagulation mechanisms are studied. The etiology, clinical symptoms, laboratory findings, treatment, and prognosis of various hematological and bleeding disorders are presented. Laboratory practice is correlated with theory content.
 Theory 3 hours - Lab 6 hours
 Prerequisites: CLT101; limited to CLT majors

CLT201 Immunoematology 4 Credits

This course is a study of the blood group antigens and their corresponding antibodies. Collection, processing and compatibility testing of infant and adult blood for transfusion therapy is emphasized. Laboratory practice is correlated with theory content.

Theory 2 hours - Lab 4 hours

Lab fee includes liability coverage

Prerequisites: CLT101, CLT102, CLT103; limited to CLT majors

CLT202 Analysis of Body Fluids 2 Credits

This course concentrates on the principles and practices of urinalysis which includes kidney function and qualitative-quantitative procedures for urine examination. The methodologies, expected values and diagnostic significance of other body fluid analyses also are emphasized. Laboratory practice is correlated with theory content.

Theory 1 hour - Lab 2 hours

Prerequisites: CLT101, CLT102, CLT103 or CHM201

CLT203 Clinical Chemistry 6 Credits

This course concentrates on the analytical aspects of clinical laboratory chemistry. The methodologies, normal values and diagnostic significance of routine laboratory procedures on peripheral blood are emphasized. Diseases associated with these various clinical chemistry tests are presented. Manual and automated determinations are correlated with the theory content.

Theory 3 hours - Lab 6 hours

Prerequisites: CLT101, CLT102, CLT103, CHM201; limited to CLT majors

CLT204 Clinical Microbiology I 4 Credits

A study of the classification, morphology, cultivation and inhibition of microorganisms is presented. Emphasis is on bacteriology and mycology with an introduction to virology designed for the medical laboratory technician major.

Theory 2 hours - Lab 4 hours

Prerequisites: CLT101, CLT102, CLT103; limited to CLT majors

CLT205 Clinical Microbiology II 4 Credits

This course builds upon knowledge gained in CLT204. The pathogenicity and laboratory diagnosis of specific bacteria and parasites are presented. Laboratory practice is correlated with theory content.

Theory 2 hours - Lab 4 hours

Prerequisites: CLT201, CLT202, CLT203, CLT204; limited to CLT majors

CLT206 Directed Clinical Practice 1 Credit

A supervised on-campus simulated clinical laboratory experience is provided for the student to perform assigned procedures normally done in the modern clinical lab. Quality control interpretations, storage, and handling laboratory samples, reporting of patient result, and troubleshooting of problems are included.

Lab 8 hours

Prerequisites: CLT201, CLT202, CLT203, CLT204; limited to CLT majors

CLT207 CLT Practicum/Seminar II 3 Credits

This course will provide the student with practical clinical experience in an approved, assigned off-campus clinical affiliate. The student will be expected to perform all of the routine tests normally performed in a clinical laboratory in the areas of microbiology, hematology, chemistry, blood banking,

serology and urinalysis. Preparation of a case study including four departments of the clinical laboratory is required. Students will engage periodically in discussions which are directed by a faculty member in the review of concepts which are applied to practical situations and preparation for the national registry exam.

Clinical/Seminar 40 hours (per week)

Prerequisites: CLT205, CLT206, CLT208; limited to CLT majors

CLT208 CLT Seminar I 2 Credits

The seminar serves as a guide in reviewing clinical laboratory science at the CLT level. Preparation of a resume and guidelines for job interviews are included. In preparation for the national registry exam, the student is required to pass a 200-question comprehensive exam covering all the material presented in the CLT curriculum with a minimum of a fifty percentile (50%).

Seminar 2 hours

Prerequisites: CLT201, CLT202, CLT203, CLT204; limited to CLT majors

COLLEGE SUCCESS SERIES**CSS091 Study Skills* 1-4 Credits**

This course is designed to help the student improve study skills. Concepts emphasized will include motivation, time management, library orientation, test-taking, note-taking in a lecture situation and textbook annotation. Individual learning styles also will be addressed. Lab hours may be spent with resources at the Learning Skills Lab.

Theory 2 hours - Lab 2 hours

* Course not counted toward graduation

CSS092 College Study Skills* 1 Credit

This course is designed to help the student improve study skills. Concepts emphasized will include motivation, time management, library orientation, test taking, note taking in a lecture situation, and textbook annotation.

Theory 1 hour

* Course not counted toward graduation

CSS100 Orientation to College 1 Credit

Information is provided to assist students in making a successful transition to the college environment. Topics include orientation to college regulations, services and terminology; personal ethics and integrity; diversity; and personal health and social adjustment. This course may be required of incoming freshmen, depending upon degree and previous college experience.

Theory 1 hour

CSS101 College Learning Seminar 1 Credit

This course will focus on the application of psychological principles of learning to college course materials and will help the students to take tests, write essays, and participate in class discussion. Students will apply a variety of techniques to actual course materials so as to experience the movement from basic knowledge acquisition to higher-level thinking skills.

Theory 1 hour

CSS102 Writing College Assignments 1 Credit

This course will help students develop strategies for college assignments that require writing, including taking notes, performing well on essay tests, writing reports and summaries, and writing informal research papers. The class will include review and practice in revising and editing strategies.

Theory 1 hour

- CSS103 Writing a Research Paper 1 Credit**
This course focuses entirely on the research paper. The student will learn or review how to do the following: choose an appropriate topic, use information technologies to research a topic, narrow or broaden topics, correctly use both primary and secondary sources, avoid plagiarism, take notes from sources, organize materials, correctly document in each of the four styles (MLA, APA, Chicago Style, CBE), edit, and proofread.
Theory 1 hour
- CSS104 Learning Online 1 Credit**
This course will help orient the student to the WebCT course platform, and focus on the active learning skills necessary to learn successfully in an online course. This course is highly recommended for students who wish to take courses online.
Theory 1 hour
- CSS105 Introduction to Education 1 Credit**
This course is for those students who intend to major in education and will introduce students to practical aspects of teaching and prepare them for their education courses. The course will cover principles of effective teaching, organizations and agencies important to education, Praxis tests, requirements of licensure, and various degree and transfer options. This course is advised for education majors.
Theory 1 hour
- CSS109 Critical Thinking 1 Credit**
This course centers on the practical aspects of critical thinking necessary for students to evaluate information. The course intends to improve student's thinking through a variety of skills such as diagramming arguments, recognition of common types of arguments and fallacies and evaluation and analysis of arguments.
Theory 1 hour
- CSS110 Modern Technology and Job Search 1 Credit**
This course will help a student use current technology to develop effective resumes, practice successful job-interviewing strategies, and search for career positions.
Theory 1 hour
- CSS115 Portfolio Development I 1 Credit**
This course provides an introduction to the art of putting together an effective portfolio. Students will learn the components of a portfolio, such as the cover letter, life history, goals paper, chronological record, narrative of learning and documentation, and gain an understanding that the portfolio is an exercise in self-evaluation, introspection, analysis, and synthesis. The student learns the principles of organizing and documenting of past learning experiences in a clear and concise manner in order to achieve a particular educational and/or career goal.
Theory 1 hour
- CSS116 Portfolio Development II 1 Credit**
This course offers students continued guidance in assembling a portfolio, collecting data and presenting written items for evaluation and revision. The instructor will assist the student in deciding which elements or areas on which to focus, depending upon the purpose of the portfolio. If students are assembling the portfolio as a means to gain credit for life experience, this second module will help the student make decisions as to the goals of the portfolio and documentation needed.
Theory 1 hour

- CSS117 Portfolio Development III 1 Credit**
This course, the final module in the Portfolio Development series, students will finish assembling the portfolio and present it for evaluation by the instructor of the class, along with a preliminary check by the party for whom the portfolio is intended. The student may also use this module to revise and perfect a portfolio that is not yet acceptable or that has been returned for revision
Theory 1 hour

COMMUNICATIONS

- COM101 Public Speaking 3 Credits**
This course is designed for building self-confidence, for developing effective volume, clarity and pace in the voice, and for improving content in communication. Research and organizational skills are emphasized. Projects and topics include listening skills, demonstration presentations, persuasive presentations, group work, telephone tactics, interview skills and interpersonal communication.
Theory 3 hours
- COM105 Interpersonal Communications 3 Credits**
Interpersonal Communications invites students to explore their present communication skills and to improve their competency in communicating with other people. Through reading and participating in class exercises, students will examine the basic elements of interpersonal communication including critical thinking, self-concept, perception, listening, verbal and non-verbal expression, emotional expression, conversational skills, personal relationships, intercultural communication, and conflict resolution.
Theory 3 hours
- COM110 Conference and Group Discussion 3 Credits**
Through role play, discussion and participation, students will develop attitudes, skills and knowledge of methods necessary to participate effectively in discussion in conferences, committees, team work, collaborative writing and other small groups.
Theory 3 hours
- COM115 Oral Interpretation 3 Credits**
Students will read literature orally and listen critically. Students will practice techniques for presenting literature dramatically. Emphasis will be placed on analyzing literary works, recognizing their emotional and dramatic value, and projecting those qualities through oral presentations. Writing assignments include response journals and short critical papers.
Theory 3 hours
- COM150 Survey of Mass Media 3 Credits**
This course serves as an introduction to mass communications in that it assesses the major forms of mass media -- radio, television, film, newspapers, magazines, and other emerging media by examining the development, purpose, methods of operation, ethical concerns, and social impact.
Theory 3 hours
- COM210 Advanced Presentation Skills 3 Credits**
This course will build on the knowledge and skills developed in COM101. Students will learn how to develop presentations that require extensive research, longer presentational times, and adaptation to diverse audiences. Attention is focused on competence with presentational technology, electronic presentations, and practical experience with speaking in business and organization settings.
Theory 3 hours

COM290 Communications Seminar **1 Credit**
 Taken in conjunction with COM291, this course is a means of communication between the internship instructor and students. Various industry representatives will present topics such as proper interviewing techniques, resume writing, etc. A student will not be permitted ordinarily to take the course or the associated course, COM291, unless 46 credit hours have been achieved.

Seminar 1 hour

Prerequisite: Completion of 46 semester credit hours

Corequisite: COM291

COM291 Communications Internship **1 Credit**
 Students receive practical on-the-job knowledge of the application of information as related to the Associate of Arts Degree with a Communications Concentration. A student will not be permitted to take the course unless 46 credit hours have been achieved or permission of instructors.

Internship: A minimum of 105 hours per credit hour

Corequisite: COM290

COMPUTER INFORMATION

CIS100D Database Management Basics **1 Credit**
 This course will introduce the student to database management, including terminology, simple table creation, data input and editing, viewing, sorting, and printing. Students will need to plan for lab time outside of class.

Theory 1 hour

Prerequisite: CIS100E

CIS100E Windows Environment **1 Credit**
 This course is designed to familiarize the student with the Windows operating system environment and essential operating system features and tasks, such as file management.

Theory 1 hour

CIS100I Internet Basics **1 Credit**
 This course will introduce the student to internet use, including searches, e-mail and attachments, website analysis, and printing. Students will need to plan for lab time outside of class.

Theory 1 hour

CIS100P Presentation Program Basics **1 Credit**
 This course will introduce the student to presentation program software, including terminology, slide creation and editing, special effects, on-screen presentations and printing. Students will need to plan for lab time outside of class.

Theory 1 hour

CIS100S Spreadsheet Basics **1 Credit**
 This course will introduce the student to spreadsheet software, including terminology, simple worksheet creation, simple formulas and functions, and basic printing. Students will need to plan for lab time outside of class.

Theory 1 hour

Prerequisite: CIS100E

CIS100T Computing Theory **1 Credit**
 A study of computing terminology, concepts, and theory designed to prepare the student to understand and use computing concepts in later courses.

Theory 1 hour

CIS100W Word Processing Basics **1 Credit**
 This course will introduce the student to word processing software, including terminology, basic document creation and

formatting, editing fundamentals and printing. Students will need to plan for lab time outside of class.

Theory 1 hour

Prerequisite: CIS100E

CIS202 Programming Logic and Development **3 Credits**
 An introduction to computer programming logic is presented. Topics include data input, storage, manipulation, program compilation, execution, and documentation. Other logic and development applications will be explored as the course progresses. Assignments require lab time outside of class.

Theory 3 hours

CIS205 Internet Research **3 Credits**
 Internet as a research tool is stressed in this course. Research techniques, differences, and evaluation of various websites for collegiate and professional purposes is stressed. In addition to web-based classwork, students also will complete assignments relating to evaluation and citation of web sources. Assignments require online time outside of class.

Theory 3 hours

Prerequisite: ENG101

CIS207 COBOL **5 Credits**
 An introduction to business-oriented programming using COBOL is offered. Topics include problem analysis, program coding, debugging and standard input/output operations. Assignments require lab time outside of class.

Theory 5 hours

Prerequisite: CIS202

CIS211 Visual BASIC Programming **4 Credits**
 This course is an introduction to programming in a Windows environment using Microsoft Visual BASIC. Topics include Visual BASIC objects and events, procedures, decisions and repetition. Use of Microsoft Windows command buttons, text, picture and label boxes, option buttons, check boxes, dialogue boxes, message boxes, menus and submenus, and scroll boxes are emphasized. Assignments require lab time outside of class.

Theory 4 hours

Prerequisite: CIS202

CIS212 Advanced Visual BASIC **3 Credits**
 A continuation of CIS211, Visual BASIC Applications will be presented. Topics will include lists, loops, printing, message boxes, arrays, and data files. Assignments require lab time outside of class.

Theory 3 hours

Prerequisite: CIS211

CIS213 Web Page Design **3 Credits**
 Web page design using HTML (Hypertext Markup Language) and authoring tools are covered. Students will compose and analyze HTML pages. Projects will be assigned individually and to teams. Assignments require lab time outside of class.

Theory 3 hours

Prerequisite: CIS205 or instructor approval

CIS214 Advanced Web Site Development **3 Credits**
 This course is designed to take the student past basic HTML and browser editors. Students will have access to development "power tools" such as Macromedia's Dreamweaver and Adobe Photoshop to create web sites and to edit images and graphics. Students will develop entire sites and will link and mount those sites online. Assignments require online time outside of class.

Theory 3 hours

Prerequisite: CIS213

CIS222 Spreadsheet Concepts 3 Credits

The course covers the most important and useful features of Microsoft Excel 2000, including the skills required for Microsoft Office Specialist Certification. Specific topics include basic spreadsheet preparation, formatting, printing, and graphics to advanced topics that may include name and range tables, custom menus, forms control, and macro writing. Assignments require lab time outside of class.

Theory 3 hours

CIS225 Database Concepts 3 Credits

The course covers the most important and useful features of Microsoft Access 2000, including the skills required for Microsoft Office Specialist Certification. The course progresses from introductory topics including planning and structuring databases, data retrieval, report generation, and custom screen design to advanced topics that may include custom screens and menus, and programming using Access.

Theory 3 hours

CIS227 Project Management 3 Credits

Project management includes the management of workflow for information technology projects and teams including planning, scope, time management and budget issues. This course covers all objectives for the Comp-TIA IT Project+ Exam (PK0-001). Microsoft Project software is used in this course and all objectives for the Project Microsoft Office Specialist exam are included.

Theory 3 hours

CIS228 Data/Operating Systems 3 Credits

An introduction to the internal operations of computers including instruction cycles and processor functions for DOS, VMS/RMS, JCL, UNIX, OS/2 and AS/400. Assignments require lab time outside of class.

Theory 3 hours

Prerequisites: CIS202, CIS207

CIS229 Advanced Database Concepts 3 Credits

Advanced Microsoft Access 2000 is a continuation of CIS225, Microsoft Access 2000. The course covers database techniques using Microsoft Access including using forms and macros to create switchboard applications, generating advanced reports, introducing Visual Basic for Applications (VBA), and administering a database once it is generated. Students will complete an independent project. This course requires lab time outside of class.

Theory 3 hours

Prerequisite: CIS225

CIS230 Mathematics for Computers 3 Credits

Detailed coverage of binary and hexadecimal number systems will be included as well as logic concepts. Linear programming and probabilities, and statistics will be discussed.

Theory 3 hours

Prerequisite: MTH096 and MTH097 or appropriate score on college placement test

CIS250 CIS Practicum 2 Credits

Work experience under supervision of work supervisor and faculty enables the CIS student to apply theory and principles learned in the classroom and lab. Students will gain firsthand experience in current practices in CIS. This practicum is REQUIRED for graduation for all CIS majors.

Practicum: Minimum of 210 hours

Prerequisites: CIS207, CIS211, or dean approval

CIS251 CIS Practicum Seminar 1 Credit

Practicum students will discuss their experiences with each other and the seminar leader (faculty). Job search techniques and skills including résumé writing, application letters and interviewing are also discussed. Seminar must be taken in same semester as practicum or after practicum has been successfully completed.

Seminar: 1 hour

Prerequisite: CIS207 or dean approval

COMPUTER SCIENCES**CPS101 Introduction to Computer Science 3 Credits**

An introduction to problem-solving methods and algorithms; computer organization; and structured programming techniques. Emphasis will be placed on required programming projects, using JAVA.

Theory 3 hours

Prerequisite: Minimum of "C" in MTH099 or satisfactory math assessment score

CPS110 Introduction to Robotics Programming 3 Credits

The course introduces industrial robots, robot classification and the application of robots in industry. Students will study industrial and OSHA safety requirements for robot applications. The various types of robotic systems and different types of end effectors will be covered. The basics of computer-aided manufacturing (CAM) utilizing robots also will be developed. Basic programming using a welding robotic work cell cover the Hobart ERC programmable controller and machine microprocessor will be developed.

Theory 2 hours - Lab 2 hours

CPS120 "C" Language 3 Credits

This course is a study of introductory programming and the C language. Modularity, data types, arrays and pointers, interactive input and displays and program control statements are among the topics covered. Additional time is required to complete assignments outside of class.

Theory 3 hours

Prerequisite: Minimum of "C" in MTH099 and some programming experience preferred

CPS140 Visual Development Applications (JAVA) 3 Credits

This course uses objects and the fundamental design principles of object-oriented programming. The JAVA language is covered, as well as its standard libraries and utilities. Applets are introduced and applications involving graphical user interfaces, multimedia, event-handling, graphics, strings, exceptions and data structure are explored.

Theory 3 hours

Prerequisite: Minimum of MTH099 or appropriate score on college placement test or instructor approval

CPS151 Introduction to Computer Networking 3 Credits

This course introduces students to Microsoft Windows 2000 and to the networking technologies it supports. Students will be able to describe user accounts and security, identify the tools used to perform administrative tasks in a Windows 2000-based network, and identify the networking architecture and protocols associated with Windows 2000. Students will be able to identify the hardware and software components required for Windows 2000 network communication, including Remote Access Services, Web Services, and utilities for network maintenance. This is Microsoft Course 2151 and presents partial material included in the following MCSE track exams: Windows 2000 professional (70-210), and Windows 2000 Server (70-215).

Theory 3 hours

Prerequisite: General working knowledge of Windows preferred

CPS152A Implementing Windows 2000 Professional 3 Credits

This course introduces students to the Microsoft Windows 2000 Professional operating system. Students will learn to install and configure Microsoft Windows 2000 Professional on stand-alone computers and on client computers that are part of a workgroup or a domain. The course covers implementing, managing, and troubleshooting protocols, resources and processes in Microsoft Windows 2000 Professional. This course presents partial material included in the following MCSE track exams: Windows 2000 Professional (70-210) and Windows 2000 Server (70-215).

Theory 3 hours

Corequisite: CPS151

CPS152B Implementing Windows 2000 Server 3 Credits

This course introduces students to the Microsoft Windows 2000 Server operating systems. Students will learn to install and configure Microsoft Windows 2000 Server on computers that are part of a workgroup or a domain. Course covers implementing, managing, and troubleshooting protocols, resources and services (DNS, DHCP, WINS, Active Directory) in Microsoft Windows 2000 Server. Course presents partial material included in these MCSE track exams: Windows 2000 Professional (70-210) and Windows 2000 Server (70-215).

Theory 3 hours

Corequisite: CPS151

CPS153 Implementing Windows 2000 Network Infrastructure 4 Credits

This course is for new-to-product support professionals who will be responsible for installing, configuring, managing and supporting a network infrastructure that uses the Microsoft Windows 2000 Server products. This is Microsoft course 2153 and presents the material included in the following MCSE track exam: Windows 2000 Network Infrastructure (70-216).

Theory 4 hours

Prerequisite: CPS152A and CPS152B

CPS154 Implementing Windows 2000 Directory Services 4 Credits

This course is designed to provide students with the knowledge and skills necessary to install, configure, and administer Microsoft Windows 2000 Active Directory directory services. The course also focuses on implementing Group Policy and understanding the Group Policy tasks required to centrally manage users and computers. This is Microsoft course 2154 and presents partial material included in the following MCSE track exams: Windows 2000 Directory Service Infrastructure (70-217), and Designing Directory Services (70-219).

Theory 4 hours

Prerequisites: CPS152A, CPS152B, CPS153

CPS210 UNIX Operating System and Applications 3 Credits

This course is a study of the UNIX environment. Topics covered include a fundamental study of the UNIX operating system; utilities and utility programs; file structure and systems, shell and shell programming; and the Vi editor. Additional time is required to complete assignments outside of class.

Theory 3 hours

CPS215 Computer Operating Systems and Applications 3 Credits

This course presents the general principles of operating systems and their structure and details physical input-output, program translation, loading and linking, buffering, and interrupt processing. It includes memory, processor, device and information management; resource management; interdependencies; multiprogramming, multiprocessing systems; and job and processor scheduling.

Theory 3 hours

CPS220 Object-Oriented Programming (C++) 3 Credits

Object-oriented programming techniques including data structures; operators and expressions; functions and prototypes; software engineering and inheritance; and stream input/output. Emphasis is placed on major programming projects. Additional time is required to complete assignments outside of class.

Theory 3 hours

Prerequisite: CPS120 or structured programming experience (with instructor permission)

CPS226 Managing a Windows 2000 Network Environment 4 Credits

This course helps to prepare the student for the MCSA and MCSE certificates. Managing Microsoft Windows 2000 Network Environment includes topics in maintaining printers and share folders; implementing and managing web-based services in an intranet; the DHCP service and name resolution for client computers with DNS and WINS; installing and configuring the DNS service; implementing the RAS; managing remote access policies; identifying Active Directory issues and resolving conflicts; implementing and managing security with Group Policy.

Theory 4 hours

Prerequisite: CPS152A and CPS152B

CPS230 Industrial Robot Programming I 3 Credits

This is a basic course in the use of robot controllers with emphasis on programming, subroutines and execution with the robot work cell. Students will learn to store programs on disks and edit them off-line on personal computers.

Theory 1 hours - Lab 4 hours

Prerequisite: CPS110

CPS231 Industrial Robot Programming II 3 Credits

This course is a continuation of WFB251. It provides training in the development of parameters for welding statements in the subroutine weld program. In addition, statements such as weaving and crater filling will be examined. The lab project will include the designing and building of jigs and fixturing to accomplish the manufacturing of the weldment in the welding robot work cell.

Theory 1 hours - Lab 4 hours

Prerequisite: CPS230

CPS261 Designing Windows 2000 Directory Services Infrastructure 3 Credits

This course provides students with the knowledge and skills necessary to design a Microsoft Windows 2000 directory services infrastructure in an enterprise network. This is Microsoft course 1561 and presents partial material included in the following MCSE track exam: Designing Windows 2000 Directory Services Infrastructure (70-219).

Theory 3 hours

Prerequisite: CPS154

CPS262 Designing a Windows 2000 Network Services Infrastructure 3 Credits

This course provides students with the knowledge and skills necessary to design a Microsoft Windows 2000 networking services infrastructure in an enterprise network. This is Microsoft course 1561 and presents partial material included in the following MCSE track exam: Designing a Windows 2000 Network Infrastructure (70-219).

Theory 3 hours

Prerequisite: CPS154

CPS281 Designing a Secure Windows 2000 Network 4 Credits

This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks using Microsoft Windows 2000 technologies. This is a Microsoft course 2150 and presents the material included in the following MCSE track exam: Designing Security for a Windows 2000 Network (70-220).

Theory 4 hours

Prerequisite: CPS154

CPS299 Special Projects in Information Technology 1-4 Credits

This course is designed to introduce the latest technologies and concepts required by the computer science field and industry. Students will have the opportunity to study technical subject matter not covered in other courses; such as, systems and networking certifications. May be used as a technical elective by any student pursuing an engineering technology degree or certificate. May be repeated; however, those students repeating the same "Special Topics" course must notify the registrar.

Theory 1-4 hours

Prerequisite coursework and/or instructor approval may be required

CORRECTIONS**COR200 Facility Safety and Fire Protection 3 Credits**

Concentrating on the principles and practices of safety, this course reviews interpretation and application of safety regulations, fire prevention and control, occupational hazards and personal safeguards (OSHA). The implementation of prevention programs, techniques of hazard analysis, risk management, emergency planning, survey of fire protection, equipment and their application to industrial hazards by understanding fire codes and standards are included.

Theory 2 hours - Lab 2 hours

COR202 Correctional Institutions in America 3 Credits

This examination of contemporary problems that exist within juvenile and adult penal institutions will include a study of inmate subcultures, riots, population control and homosexuality. This course also will examine comparative penal systems, treatment approaches and new alternatives.

Theory 3 hours

Prerequisite: Corrections Academy students must be employed as a full-time corrections officer

COR203 Criminology 3 Credits

This study of the social context of crime incorporates an examination of criminal behavior, specifically macrotheory which explains social structure and its effects; microtheory which explores how people become criminal; and bridging theories which attempt to explain both how social structures come about and reasons people become criminal.

Theory 3 hours

COR204 Community-Based Corrections 3 Credits

An explanation of the philosophy and programs of juvenile and adult probation supervision, aftercare parole, halfway houses, work release and educational release furloughs will be covered. The dilemma of surveillance-custody/control factor vs. supervision treatment will be examined. The introduction to classification will be analyzed. Citizen-agency relationships will be investigated along with the potential for using citizen volunteer programs.

Theory 3 hours

COR205 Juvenile Delinquency 3 Credits

An analysis of the social and psychological factors underlying delinquency is studied as well as the role of the police officer, juvenile court and probation officer in the prevention and treatment of juvenile offenders.

Theory 3 hours

COR206 Contemporary Topics: Corrections Each 3-Credit Courses

This special course is designed to assist a student with select topics dealing with contemporary issues in the field of corrections. Topics will be selected and may include but are not limited to: cultural diversity; suicide in custody; correctional law; prison violence; gangs in prisons; drugs, alcohol and other addictions.

Theory and/or lab hours assigned based on topics offered

COR206B Contemporary Topics: Jail/Lock-Up Management 3 Credits

This course is designed to provide the student with basic information about federal and state standards that regulate prisoner care in local lockups.

Theory 3 hours

COR206C Contemporary Topics: Sentence Alternatives 3 Credits

This course details sentences that effectively punish offenders for their crimes and addresses common sentencing concerns including rehabilitation, deterrence, retribution, and justice. In addition, it provides basic analysis and information necessary to match sentence and the offender.

Theory 3 hours

COR 208 Constitutional Right of Prisoners 3 Credits

This course traces the development of correctional case law which affects the administration and operation of jails, correctional institutions and parole services. A casebook method will be used to provide students with an understanding of specific judicial decisions relating to the constitutionality of correctional programs and processes.

Theory 3 hours

CRIMINAL JUSTICE TECHNOLOGY

CJT101 Introduction: Criminal Justice 3 Credits

A survey of the philosophy and principles of the American criminal justice system is offered. The roles of the peace officer, corrections officer and security officer are presented; respective functions within the system are examined.

Theory 3 hours

CJT102 Procedural Law 3 Credits

This course focuses on the various laws that govern policing, specifically those based on the U.S. Constitution, U.S. Supreme Court decisions, and statutes passed by Congress and state legislatures.

Theory 3 hours

CJT103 Crisis Intervention 3 Credits

This course presents a study of human relations on dealing with older adults; the physically or mentally challenged; rape victims; domestic violence victims; missing, abused and neglected children; and parents of those children.

Theory 3 hours

Prerequisite: Corrections Academy students must be employed as a full-time corrections officer

CJT105 Information Technology and Criminal Justice 3 Credits

This course is designed to provide the student with an understanding of the computer, use of personal computers, use of the Internet, and knowledge of cybercrime.

Theory 3 hours

CJT201 Traffic Accident Investigation 3 Credits

Accident reporting and investigation, use of template and the accident investigation kit, search for physical evidence, accident diagraming and charting, preparation of statements, and interviewing of witnesses are presented.

Theory 2 hours - Lab 2 hours

CJT202 Criminal Investigation 3 Credits

This course provides the student with methods of investigating crime scenes. Topics include: scene search, recording, sketching, photographing, use of lineups and fingerprint processing. Special emphasis will be placed on interviewing and interrogation. Assignments require lab time outside of class.

Theory 3 hours

CJT204 Criminal Evidence 3 Credits

A study of the scientific means of identifying criminals through trace evidence is offered to acquaint the student with the best utilization of the crime laboratory.

Theory 2 hours - Lab 2 hours

Prerequisites: CJT202 or program director approval

CJT205 Emergency Response/First Aid 2 Credits

This course provides the knowledge and skills to meet the needs of emergency situations before regular medical aid can be obtained. Students who successfully complete this course will be certified in basic life support (BLS).

Theory 1 hour - Lab 2 hours

CJT207 Crime Scene Photography 3 Credits

This course is designed for the student who possesses basic skills of camera operation and photographic laboratory techniques. The student will become more proficient with photographic theories and principles of crime scene processing that enable investigators, attorneys and courts to revisit the crime scene, at will, as it was first observed. The student also will learn how to

photograph fugitive or perishable evidence and to present facts and physical circumstances in a vivid and realistic pictorial form for the prosecutor, court and jury.

Theory 2 hours - Lab 2 hours

Prerequisites: CJT100, CJT026, or instructor approval

CJT208 Contemporary Topics: Criminal Justice Each 3-Credit Courses

This special course is designed to assist a student with select topics dealing with contemporary issues in the law enforcement area. Topics will be selected to meet the current community needs and may include mental health training for police; jail and lockup management; organized crime; arson investigation; alcohol and drug abuse; and street survival.

Theory and/or Lab hours assigned based on topic offered

CJT208A Contemporary Topics: Hostage Negotiation 3 Credits

This course is designed to give the officer an understanding of the nature of hostage-taking situations; the motivation and psychology of the hostage-taker; the role and mental condition of the hostage; and the role of the hostage negotiator-police officer.

Theory 3 hours

CJT208B Contemporary Topics: Organized Crimes 3 Credits

The objective of this course is to provide the student with an analysis of organized crime which provides a theoretical basis for understanding how criminal organizations are structured and how they function, including a history of organized crime with detailed coverage of the period from the late 19th century to the present. Two models of criminal hierarchies are examined in detail. Laws and law enforcement methods used to deal with organized crime are carefully reviewed and the crucial issues of official corruption and government policy are examined.

Theory 3 hours

CJT208E Contemporary Topics: Domestic and International Terrorism 3 Credits

This course will examine the origins of terrorism, the criminological theories applicable to individual and group dynamics associated with terrorism, and the response by terroristic groups to social, political, and religious changes. Specific issues in modern terrorism will be discussed in relation to its affects on and response by the criminal justice system.

Theory 3 hours

CJT208F Contemporary Topics: Criminal Profiling 3 Credits

Offender profiling has become more prevalent in the efforts to reduce crime and prevent disasters such as the World Trade Center and events of September 11, 2001. This course will provide a historical background and evolution of the concept of offender profiling as well as examine its use in today's investigations. The course will critically analyze the debates surrounding the use of profiles and explore its credibility as a science and investigational tool. Profiling violent offenders and geographical profiling also will be discussed.

Theory 3 hours

CJT210 Introduction to Criminal Law 3 Credits

This course explores the development of criminal law in the United States; various crimes and their elements, including common law, the Model Penal Code, and criteria considered in determining capacity and defenses.

Theory 3 hours

CJT212 Professionalism, Ethics, and Criminal Justice 3 Credits

Students will study the theories and practices in areas of legality, morality, values, and ethics as they pertain to criminal justice. Included will be an analysis of contemporary topics affecting law enforcement, the judiciary and corrections, and methods for dealing with them as well as discussions pertaining to the profession and professional conduct.

Theory 3 hours

Prerequisite: CJT101 or instructor permission

CJT213 Police Function 3 Credits

This course provides an overview of American policing by analyzing its historical development, examining the current status of the police industry at the local, state, federal, and private levels; correlating police organizations with its officers and communities; examining basic functions of the police and assessing community policing, police misconduct and control, and the future of policing.

Theory 3 hours

DENTAL ASSISTING TECHNOLOGY**DAS101 Introduction: Dental Assisting 1 Credit**

This course is designed to provide the student with an introduction to dental assisting. Topics include history of dentistry, role of the dental assistant, personal and professional growth, ethics and a working knowledge of dental terminology.

Theory 1 hour

DAS102 Dental Sciences 4 Credits

The student is given an overview of general and medical microbiology with emphasis on dental and periodontal aspects. General pathology and oral diseases are discussed along with highlights on dental anomalies and communicable disease. Drugs and medicines used in the dental office including nomenclature of drugs, proper administration, effects, actions and medical/dental emergencies are presented.

Theory 4 hours

DAS103 Preventive Dentistry 2 Credits

The content of this course is designed to include the development of a caries control program. Special emphasis is given to oral hygiene, the study of dental plaque, the use of the toothbrush, the latest methods of preventing tooth decay, and the equipment and methods used to prevent dental disorders. Communication techniques related to using nutrition in the prevention of disease and nutritional counseling methods are developed in lab sessions and in elementary classroom situations.

Theory 1 hour - Lab 2 hours

Prerequisite: Admission to the Dental Assisting Program or waiver for practicing dental assistants with advisor approval

DAS104 Dental Materials I 3 Credits

The student is introduced to the various materials used in the dental office. The physical and chemical properties of these materials are included. Emphasis is placed on manipulation and practical application of basic dental materials in the laboratory sessions. The maintenance and use of laboratory equipment, the proper handling of potentially hazardous wastes, and infection control procedures are included.

Theory 2 hours - Lab 2 hours

Prerequisite: Admission to Dental Assisting Program
Corequisite: DAS105

DAS105 Chairside Assisting I 4 Credits

An introduction to chairside assisting is provided. The principles and skills of chairside assisting are cultivated by observation, discussion, study, demonstration and practice in the laboratory sessions. Emphasis is placed on care of equipment and instruments, oral examinations and histories, dental charting, oral evacuation, four-handed dentistry, local anesthetics, cavity preparation, and sterilization and infection control procedures. Lab fee includes liability coverage fee.

Theory 2 hours - Lab 4 hours

Prerequisite: Admission to Dental Assisting Program

Corequisite: DAS104

DAS106 Chairside Assisting II 2 Credits

This course content builds upon the knowledge gained in DAS105, and it includes development of restorative and surgical procedures, specific surgical and restorative instruments, rubber dam placement, and all dental specialties procedures. Cultivation of this material is achieved by discussion, study, demonstration and practice in laboratory sessions.

Theory 1 hour - Lab 2 hours

Prerequisites: DAS104, DAS105

Corequisite: DAS107

DAS107 Dental Materials II 3 Credits

This course, a continuation of DAS104, includes the physical and chemical properties of advanced dental materials. Emphasis will be placed on manipulation and application of more complex dental materials used with advanced operative procedures; infection control; and handling of potentially hazardous wastes.

Theory 2 hours - Lab 3 hours

Prerequisites: DAS104, DAS105

Corequisite: DAS106

DAS108 Dental Anatomy 3 Credits

Dental nomenclature, form and function of the teeth and related structures, tooth development, and permanent and deciduous morphology are presented. Anatomical directional terms, muscles of mastication and facial expression, the blood supply to the head, fifth cranial nerve supply, salivary glands, and anatomical topography are emphasized. Familiarity with dental cytology, histology, and embryology is included.

Theory 3 hours

Prerequisite: BIO101

DAS109 Dental Radiology 4 Credits

This course concentrates on the principles of radiology, X-ray production, radiation safety, and health practices and hazards, including quality assurance and regulations. Radiographic interpretation, evaluation of common radiographic inadequacies, film identification, and mounting and darkroom procedures are included. In the required college laboratory sessions, exposing, processing, and mounting of intraoral and extra-oral radiographs will be completed.

Theory 2 hours - Lab 4 hours

Lab fee includes film badge services

Prerequisite: Minimum of a "C" or "P" in BIO101, DAS101, DAS102, DAS103, DAS104, DAS105

Corequisite: DAS108

DAS110 Clinical Education 2 Credits

Planned clinical educational experience in a dental office is intended to provide the student with the opportunity to use the principles and skills obtained in DAS105 and continued concurrently in DAS106. This experience will be supervised and evaluated.

Clinical 12 hours

Prerequisite: Minimum of a "C" or "P" in BIO101, DAS101, DAS102, DAS103, DAS104, DAS105

DAS111 Dental Administrative Procedures 2 Credits

This computerized course is designed to assist the student in developing sound dental business procedures while identifying the role of the dental assistant in office procedures. It will include patient scheduling, filing procedures, typing, financial records and insurance forms, bookkeeping, and telephone and collection techniques.

Theory 1 hour - Lab 2 hours

Prerequisite: Minimum of "C" in BIO101, DAS101, DAS102, DAS103, DAS104, DAS105

DAS201 Dental Assisting Seminar 1 Credit

This seminar is designed to encourage student participation in discussing the practical experience. Emphasis is placed on dental specialties, disease prevention, efficiency in the dental office, patient contact, and personal and professional growth. An opportunity is provided to review for the DANB (Dental Assisting National Board) Certification Examination.

Seminar 1 hour (Blocked in five-week summer session)

Prerequisite: Minimum of "C" or "P" in all DAS courses from 101-111

Corequisite: DAS202

DAS202 Dental Assisting Practicum 1 Credit

This course was designed to provide the student with an opportunity for practical application of the dental principles and skills gained in the previous two semesters of the program. The student is assigned to a dental office for supervised practical experience, and is required to provide an evaluation of office experiences and individual work experience sheets.

Practicum 8 hours - (Blocked in five-week summer session - 40 contact hours per week)

Prerequisite: Minimum of "C" or "P" in all DAS courses from 101-111

Corequisite: DAS201

DAS203 Expanded Assisting II 3 Credits

This course is designed to enhance the principles and skills of restorative assisting. Emphasis is placed on expanded functions in the area of operative dentistry and other functions as governed by the Ohio State Dental Practice Act. This is accomplished through theory and on-campus laboratory sessions.

Theory 2 hours - Lab 6 hours

Lab fee includes liability coverage

Prerequisite: Admission to EFDA Program

DAS204 Expanded Assisting II 2 Credits

This course is a continuation of DAS203 and provides the student with an opportunity to practice the application of all classes of restorations on the typodont. Emphasis also is placed on topics relating to the Expanded Functions Dental Auxiliary (EFDA) Registration Examination in the state of Ohio.

Theory 1 hour - Lab 6 hours

Lab fee includes film badge service

Prerequisite: DAS203

DAS205 Directed Clinic Practice 1 Credit

This planned, supervised and evaluated experience is taken concurrently with and includes the application of knowledge and skills learned in DAS204. The student, under the supervision of a licensed dentist, will restore patients' teeth in the dental setting. Emphasis is placed on restoring composite

and amalgam restorations. Other clinical procedures permitted by the Ohio State Practice Act may also be performed at the discretion of the dentist. The student is required to provide five restorative patients.

Clinic 6 hours

Prerequisite: DAS203

Corequisite: DAS204

DESIGN ENGINEERING TECHNOLOGY**DES110 Drafting I 3 Credits**

This is a basic course in freehand and mechanical drawing. Emphasis is on drafting theory, conventional practices and techniques. Course content includes lettering, lines, sketching, use of equipment and materials, geometric constructions, orthographic projection, dimensioning, primary auxiliary views, sections, isometric pictorials and overview of CAD.

Theory 3 hours

DES111 Drafting II 3 Credits

In this mechanical drafting class, topics include use of drafting equipment, geometric construction, fasteners, tolerance dimensions and working drawings. This is mechanical drawing class and basic drafting tools will be required.

Theory 3 hours

Prerequisite: DES110 or instructor approval

DES115 Computer Aided Design I 3 Credits

Computer-aided drafting (CAD) is introduced. Students learn to use and operate the CAD system to prepare drawings according to drafting industry standards.

Theory 3 hours

Prerequisite: DES110

DES120 Geometric Dimensioning and Tolerancing (GD & T) 2 Credits

This course will provide the students with the fundamentals of geometric dimensioning and tolerancing (GD & T) concepts as adopted by the American National Standards Institute (ANSI) and published by the American Society of Mechanical Engineers (ASME). It covers fundamental dimensioning rules and tolerancing definitions, symbols, terms, datums, tolerances of form and profile, tolerance of orientation and runout, CADD generated geometric tolerance symbols and location tolerances.

Theory 2 hours

Prerequisite: DES110 or instructor approval

DES201 Electrical Drafting 2 Credits

An introduction to the fundamentals of electrical/electronics drafting is given with the purpose to acquaint the student with the symbolism and diagrams used in the electrical/electronics field. This is a mechanical drawing class and basic drafting tools will be required.

Theory 2 hours

Prerequisite: DES110 and DES115 or instructor approval

DES210 Descriptive Geometry 2 Credits

Solving spatial problems by projections, visualizing space conditions and analyzing a given situation are topics covered in this course. The elements that are of concern are points, lines and planes. A direct application is made of orthographic projection methods and geometric figures. This is a mechanical drawing class and basic drafting tools will be required.

Theory 2 hours

Prerequisite: DES111 or instructor approval

DES215 Computer Aided Design II 2 Credits

This is a continuation of DES115 with emphasis on application. The construction of working drawings (orthographic projection, pictorials and diagrammatic representation) utilizing the computer equipment is studied and practiced.

Theory 2 hours

Prerequisite: DES115 or instructor approval

DES220 Structural/Architectural Drafting 2 Credits

This is a course dealing with the conventional practices and procedures necessary in graphically describing structures. A set of drawings for a residence is constructed. Drawings also are made for steel and masonry construction. This is a mechanical drawing class, and basic drafting tools and CAD will be used.

Theory 2 hours

Prerequisites: DES111 and DES115 or instructor approval

DES221 Piping Drafting/Map Drafting 2 Credits

Working drawings for piping systems and maps used in the engineering/architectural areas are studied and drawn. Topics covered include symbolism and diagrams. This is a mechanical drawing class, and basic drafting tools and CAD will be used.

Theory 2 hours

Prerequisites: DES111 and DES115 or instructor approval

DES222 Technical Illustration 2 Credits

The axonometric, perspective and oblique forms of pictorial illustration are studied. Attention is given to the use of templates, dimensions and shading. This is a mechanical drawing class, and basic drafting tools and CAD will be used.

Theory 2 hours

Prerequisites: DES111 and DES115 or instructor approval

DES225 CAD Animation 2 Credits

This course is designed to help drafters conceptualize and communicate their design ideas. 3D Studio VIZ is a tool for designers who need to explore three-dimensional design ideas, to work with a variety of CAD programs and data, and to acquire flexibility in how to present their designs.

Theory 2 hours

Prerequisite: DES215 or instructor approval

DIGITAL MEDIA DESIGN**DMD101 Digital Media Fundamentals 3 Credits**

Theory, design and development of multimedia information delivery is the focus of this course. Students will learn the development life cycle of fundamentals of multimedia development including the development cycle and presentation techniques. Examples of development of projects will be done using industry standard software such as Macromedia *Director*. Students will create a portfolio of individual projects. Additional time beyond regular class time will be required to complete assignments.

Theory 3 hours

DMD201 Digital Images 3 Credits

The creation, manipulation, and editing of bitmap digital images for use in electronic presentations, the World Wide Web, or desktop publishing is the focus of this course. Students will be use hardware such as flatbed scanners, digital cameras, and color printers and industry standard software such as Adobe *Photoshop*. Students will create a portfolio of independent projects. Additional time beyond regular class time will be required to complete assignments and projects.

Theory 3 hours

Prerequisite: DMD101

DMD202 Digital Graphics 3 Credits

The creation, manipulation, and editing of vector graphics for use in electronic presentations, the World Wide Web, or desktop publishing is the focus of this course. Students will master drawing, text, and color techniques as well as the use of industry standard software such as Macromedia *Freehand*. A portfolio of independent projects will be created by each student. Additional time beyond regular class time will be required to complete assignments and projects.

Theory 3 hours

Prerequisite: DMD101

DMD203 Interactive Media and Animation 3 Credits

The creation, manipulation and editing of interactive applications and games for applications or the World Wide Web is the focus of this course. Students will master interface and programming using a tool such as Macromedia Flash and Action Script. A portfolio of independent projects will be created by each student. Additional time beyond regular class time will be required to complete assignments and projects.

Theory 3 hours

Prerequisite: DMD101

DMD204 Digital Video Production 3 Credits

The creation, manipulation, editing, and production of video for use on the World Wide Web or other electronic distribution is the focus of this course. Students use hardware such as digital video camera, videotape, and capture cards and industry standard software such as Adobe *Premiere* to create short films. Students will write, edit, and produce a major project consisting of an original movie as well as a portfolio of other projects. Additional time beyond regular class time will be required to complete assignments and projects.

Theory 3 hours

Prerequisite: DMD101

EARLY CHILDHOOD: PREKINDERGARTEN CARE AND EDUCATION**ECE101 Cognitive and Physical Development of the Child 3 Credits**

The historical and current perspective of child care centers will be presented. Methods to establish a safe, healthy and effective learning environment will be included. The focus will be on the physical and intellectual growth of young children. Also, effective ways of maintaining a commitment to professionalism will be included.

Theory 3 hours

ECE102 Social and Emotional Development of the Child 3 Credits

Methods to establish positive and productive relationships with families will be presented to ensure and construct a program responsive to the needs of young children. This course also includes methods teachers can use to support the social and emotional development of young children while providing positive guidance.

Theory 3 hours

Prerequisite: ECE101 recommended

**ECE103 Communicable Diseases/
Child Abuse Recognition 1 Credit**

This course concentrates on the prevention, recognition and management of communicable diseases including the protection of child care staff members. Child abuse and neglect including physical and behavioral indicators of child abuse; assisting families; reporting concerns; and the prevention of child abuse and neglect in day care facilities are included. This course satisfies the Ohio Department of Human Services inservice training requirements.

Theory 1 hour

ECE104 Early Childhood Development Practicum 1 Credit

On-campus site, or if already employed, the student's job site may be used as an integral segment of this teaching practicum experience. Based on student enrollment and available sites, practicum may be scheduled in the summer term or fall semester.

Practicum 8 hours (summer requires 15 hours per week x 8 weeks; fall requires 8 hours per week x 15 weeks)

Prerequisite: ECE101

Prerequisite/corequisite: ECE102

Corequisite: ECE105

ECE105 Early Childhood Development Seminar 1 Credit

This seminar is designed to give the student an opportunity to discuss ECD104 practicum experiences. Guest lecturers will be invited to participate. Based on enrollment and available sites, seminar may be scheduled in the summer term or fall semester.

Seminar 1 hour

Prerequisite: ECE101

Prerequisite/corequisite: ECE102

Corequisite: ECE104

**ECE106 Care and Development
of Infants and Toddlers 3 Credits**

This course focuses on providing care for the infant and toddler-aged child. The areas of heredity, pregnancy and birth are included. The subject of school-age, latchkey programs, with the child care setting, also is discussed.

Theory 3 hours

ECE107 Administration of Childcare Centers 3 Credits

This course focuses on current issues and trends in early childhood education. Included are social service agencies available to support and empower families and an introduction to family-oriented opportunities.

Theory 3 hours

Prerequisites: ECE104 and ECE105 recommended

**ECE108 Early Childhood Development
Practicum II 1 Credit**

This course provides the student with the opportunity to work directly within local social service agencies or in infant/toddler care programs.

Prerequisites: ECE104, ECE105

Corequisite: ECE109

Recommended: ECE106

ECE109 Early Childhood Development Seminar II 1 Credit

This seminar is designed to give the student an opportunity to discuss ECD108 Practicum experiences. Guest lecturers will be included as appropriate to student needs. Attendance is mandatory.

Prerequisites: ECE104, ECE105

Corequisite: ECE108

Recommended: ECE106

ECE110 Wellness and Safety in Early Childhood 3 Credits

This course is designed to cover the normal physical sequence of growth and development that occurs throughout early childhood along with special factors that can influence development such as safety, health, and nutrition. Current issues in regard to the health and safety of children also will be covered.

Theory 3 hours

**ECE111 Society, Family, and Diversity
in Early Childhood 3 Credits**

In this course, students learn how to encourage children to become contributing members of their society, i.e. the family, the classroom, the community. Emphasis is on goals that encourage the development of the child's self-esteem and self-reliance. The aspiring teacher candidate learns ways to promote a multi-cultural classroom. Aspiring teachers also learn the importance of field trips and ways to plan and execute successful experiences. Methods of integrating multi-cultural, intergenerational, government, ecology, geography, community living, holiday celebrations, and current events into the curriculum are studied and practiced.

Field/lab hours - 10 required per week

**ECE112 Integrating Language and Literacy
in the Early Childhood Curriculum 3 Credits**

This course will cover the foundations of early literacy development, including theories and practices. Prospective teachers will observe and assess the learning needs of young children, and will learn ways to motivate reading and writing and to increase phonemic awareness. Family literacy issues will be presented and discussed, and prospective teachers will learn how to create a literacy environment in an early childhood classroom.

Theory 3 hours

**ECE113 Integrating Math and Science Concepts
in the Early Childhood Curriculum 3 Credits**

This course shows the aspiring teachers how to use activities and environment to teach math and science concepts, including such concepts as one-to-one correspondence, number sense and counting, logic and classifying, comparing, early geometry (shapes), spatial sense, parts, and wholes. Aspiring teachers also will learn how to teach children early science concepts, including life science, physical science, earth and space science, environmental awareness, health, and nutrition.

Theory 3 hours

**ECE114 Integrating Music, Art and Play
in the Early Childhood Curriculum 3 Credits**

This course studies children's creative expression and psychomotor development through play, developmental stages of art in two- and three-dimensional forms, musical chants, rhythms, and instruments. The course also will demonstrate ways to integrate creative drama and movement into the early childhood classroom. The course will familiarize aspiring teachers with theories regarding play and creativity in young children, and will help aspiring teachers foster creativity in children through integrated practices and through physical environment.

Theory 3 hours

ECONOMICS**ECO101 Macroeconomics 3 Credits**

The course deals with a basic understanding of the operation of our economic system. Presents a measurement of production,

employment and income; demonstrates the role of money supply; relates the importance of international trade; explains current methods of economic analysis and development of economic policies; and explains the role of government in our economy.

Theory 3 hours

ECO102 Microeconomics 3 Credits

Content of the course examines specific economic units; households, firms, industries, labor groups; and how these individual units behave in the marketplace. Market structures of pure competition, monopolistic competition, oligopolies and monopolies are examined.

Theory 3 hours

ECO105 Personal Finance 3 Credits

This course provides students with an understanding of the fundamentals of personal finance, including budgeting, consumer credit, taxes, insurance, investment, and financial and retirement planning. This course will help the student make informed financial decisions through practical, real-world projects.

Theory 3 hours

ECO201 Money and Banking 3 Credits

A study of the framework for the current money and banking environment is given. Monetary and fiscal policy and its limitations and implications are developed. The role of the Federal Reserve System is emphasized.

Theory 3 hours

Prerequisite: ECO101

EDUCATION

EDU200 Foundations of Education 3 Credits

This is an introduction to the profession of education. It is designed to be a survey course for students who are interested in transferring into education programs and related fields. Candidates will explore five major themes: professionalism, diversity, democratic issues/social justice, curriculum and instruction, and finally legal and organizational issues. These themes will provide teacher candidates with a broad understanding of education and schooling in the United States. Ten hours of observation/field work required.

Theory 1 hour

EDU201 Instructional Technology 3 Credits

This course is designed to teach future teachers to use multimedia computer systems, as well as other technology in the classroom. It covers basic computer use, word processing, database programs, spreadsheets, Internet and WWW use, web page design, and programming languages. Other areas covered include selecting and using Internet materials, designing multimedia presentations, copyright issues and the impact and interaction of the ethical, societal, educational and technological trends and issues. This class requires two hours of lecture and three hours of lab per week, one of which will be out-of-class lab assignments.

Theory 2 hours - Lab 3 hours

Prerequisite: CIS100 series is advised for students who have little or no computer experience; recommended: CIS100P, CIS100S, CIS100W

EDU202 Classroom Management: Issues and Trends 3 Credits

This course explores the various ways knowledge of child development and growth can be used to manage and organize a classroom. This course covers current trends, legislation and other public issues in early childhood education and childcare management. Some issues covered will be non-discrimination policies, personnel policies, and licensing requirements. Social issues, ethical issues and teaching children with diverse backgrounds will be covered also. Course requires 10 hours of observation/report.

Theory 3 hours

EDU203 Literacy, Language, and Phonics 3 Credits

The purpose of this course is to learn how language is acquired and developed. Listening, speaking, reading, and writing as ways to encode and decode language are studied within cultural contexts. Strategies for addressing learning styles and cultural differences in language use will be studied and practiced. Candidates will learn how human beings acquire literacy and how to foster the development of literate practices. Content reading issues will also be addressed.

Theory 3 hours

Prerequisite: EDU200

EDU206 Teaching Practicum 2 Credits

This practicum gives the prospective teacher the opportunity to work in a classroom setting at an off-campus site. The students will put into practice curriculum development methods and models of teaching strategies. The selection and sequence of content and learning activities should progress from more familiar deductive, teacher centered models to student centered models which stress inductive thinking, cooperative learning, modes of inquiry, problem-solving and creative thinking. The course will address the different learning styles and appropriate curriculum development. The practicum must be taken in conjunction with the seminar course and consists of 14 hours of practice experience at a variety of teaching levels.

Practicum 14 hours

Prerequisite: CSS105, EDU200

Corequisite: EDU207

EDU207 Teaching Seminar 1 Credit

This seminar will focus on the models of teaching and curriculum issues that students will experience during their practicum in the classroom. Students meet one hour each week for discussion and problem solving based on their experiences.

Theory 1 hour

Prerequisite: CSS105, EDU200

Corequisite: EDU206

EDU210 Children's Literature 3 Credits

Designed primarily for prospective pre-kindergarten and elementary teachers, this course explores the history, content, and value of poems, stories, and non-fiction written for children. Students will analyze and evaluate these works and learn techniques for involving children in reading and listening. The course will also explore the connection between children's literature and the linguistic, sociological, and psychological development of the child.

Theory 3 hours

Prerequisite: ENG101

ELECTRICAL/ELECTRONICS ENGINEERING

ELE101 Circuits I 4 Credits

A basic understanding of direct current circuit behavior is the main theme for this course. Concepts such as current, voltage and resistance are introduced. Basic circuit principles such as Ohm's Law and Kirchhoff's Law are emphasized. Two linear elements, capacitor and inductor are also studied.

Theory 3 hours - Lab 2 hours

Prerequisite: MTH099 with a minimum grade of "C" or appropriate score on college placement test

ELE102 Circuits II 4 Credits

A continuation of ELE101 Circuits I, this course is geared to provide the student with a solid foundation in alternating current circuit principles and analysis. Students will be introduced to the concept of phasors and their application to electrical quantities such as current, voltage, and impedance. Some of the course topics are Phasor analysis, analysis of RLC circuits, sinusoidal response of RLC circuits, resonance, and transformers. Laboratory experiments are designed to promote teamwork and provide an extensive hands-on opportunity for students to put theory into practice.

Theory 3 hours - Lab 2 hours

Prerequisites: ELE101, MTH111

ELE104 D.C. Machinery 3 Credits

This course presents the principles of operation and characteristics of the basic types of direct current machines, covers in particular, series, shunt, and compound generators and motors. In addition, the course describes methods for controlling the speed of dc motors, and discusses the basics of dc variable speed drives. Reference manuals and/or data sheets are referred to whenever appropriate. Laboratory experiments are designed to promote teamwork and provide an extensive hands-on opportunity for students to put theory into practice.

Theory 2 hours - Lab 2 hours

Prerequisite: ELE101

ELE106 Computer Networking I 4 Credits

This course is semester one of the CISCO Networking Academy Program. This course covers OSI model and industry standards, network topology, IP addressing, including subnet masks, networking components and basic network design.

Theory 4 hours

ELE107 Computer Networking II 4 Credits

This course is semester two of the CISCO Networking Academy Program. Beginning router configurations, and routed and routing protocols are explained in this class. Hands-on experiments will enforce the material learned in the classroom.

Theory 4 hours

Prerequisite: ELE106

ELE121 Electronic Circuits 4 Credits

This course will cover the function and operation of many electronic analog circuits that are found in such systems as: communication systems, test equipment, industrial controls and monitoring units.

Theory 3 hours - Lab 2 hours

Prerequisite: ELE101

ELE130 Digital Computer Electronics 4 Credits

This course familiarizes the student with the basic theory and application of a variety of integrated chips. Emphasis is placed on digital-integrated circuit techniques as applied to combina-

tional and sequential devices. Identifying and recognizing the operation of such devices are explored.

Theory 3 hours - Lab 2 hours

Corequisite: ELE101

ELE202 A.C. Machinery 3 Credits

This course is designed to enable the student to understand, specify, connect and satisfactorily apply the various existing types of electric motors and generators. Strong emphasis is placed on the use of manuals/data sheets and machine specifications. Lab experiments are based on computational procedures which illuminate and clarify the basis of electrical machine operation and prepare the student for a realistic industrial situation. The intended result is that the student will be competent and comfortable with the requirements to specify the most effective machine for a specific job.

Theory 2 hours - Lab 2 hours

Prerequisite: ELE102

ELE205 Power Distribution 3 Credits

The purpose of this course is to provide the student with a basic understanding of electrical distribution and associated power system concepts. Key concepts are presented by stressing applications-oriented theory. Concepts are presented through an "electrical power systems" model which includes power distribution as a key element. The other subsystems of this model include electrical power production, electrical power distribution, electrical power control, electrical power conversion, and electrical power measurement. "Real world" applications and operations are stressed through solving mathematical problems using the basic algebraic and trigonometric applications. *Safety* is a primary factor in working with electrical systems. Emphasis is placed on a compliance with safety codes, such as the National Electrical Code and the National Electrical Manufacturers Association.

Theory 2 hours - Lab 2 hours

Prerequisite: ELE102

ELE206 Computer Networking III 4 Credits

This course is semester three of the CISCO Networking Academy Program. Advanced router configurations, LAN switching theory and VLANs, advanced LAN and LAN switched design, Novell IPX, and threaded case studies are studied. Special emphasis will be placed on working with the required networking equipment.

Theory 4 hours

Prerequisite: ELE107

ELE207 General Instrumentation 3 Credits

This course is designed to meet the needs of the instrumentation technician who must learn the methods and devices that are used to measure variables in process control. Some of the topics are, measurement errors, pressure, level, flow, temperature, and humidity measurements, and the commonly used instruments for measuring these variables in the industry. Laboratory experiments are designed to promote teamwork and provide an extensive hands-on opportunity for students to put theory into practice.

Theory 2 hours - Lab 2 hours

Prerequisite: ELE102

ELE208 Industrial Controls 3 Credits

This course covers theory and application of control components and systems. With the use of manuals, handbooks/equipment specifications, students learn to think through the process of diagram development in connecting control devices from control pilot devices and electromagnetic motor starters to programmable logic controllers. The application area of the

course is the field in which most students will be employed and will need knowledge. Consequently, control stations, in the lab, equipped with personal computers and programmable logic controllers are designed to be as state-of-the-art as possible.

Theory 2 hours - Lab 2 hours

Corequisite: ELE202

ELE214 Programmable Logic Controllers 3 Credits

This course is a continuation of ELE213, Advanced PLC instructions (Communication, Shift Register, Immediate I/O, Sequencer, PID) and index addressing mode are covered. In the lab, the instructor will provide a realistic situation that will enable the student to apply those instructions.

Theory 2 hours - Lab 2 hours

Prerequisites: ELE208 or instructor approval

ELE215 Communication Systems 3 Credits

Communication Systems I deals with the transmission and reception of information using amplitude and frequency modulation techniques. The digital communication topics also are covered. In the lab students will use trainers to observe, measure, troubleshoot and modify audio signals at any stage in transmitters and receivers.

Theory 2 hours - Lab 2 hours

Prerequisite: ELE121

ELE216 Operational Amplifiers 2 Credits

Operational amplifiers are used in most of control and communication systems. This course introduces the student to the variety of applications of op-amp.

Theory 1 hour - Lab 2 hours

Prerequisite: ELE121

ELE217 Computer Networking IV 4 Credits

This course is semester four of the CISCO Networking Academy Program. WAN theory and design, WAN technology, PPP, Frame Relay, ISDN, network troubleshooting, national SCANS skills, and threaded case studies are among many other subjects covered in this course. This course is the last course of the CISCO curriculum that prepares the student for the CISCO Certified Networking Associate (CCNA).

Theory 4 hours

Prerequisite: ELE206

ELE220 Programming and Interfacing Microprocessors and Microcontrollers 4 Credits

Programming a microcontroller and interfacing a readily available predesigned development board to an industrial application is emphasized. Students develop techniques to write real time code for microcontroller based products, test equipment, and process control applications. CPU instruction set, assembler directives, debugger commands, A/D and D/A conversations, and interfacing techniques are fully explored by using hands-on experiences in the lab.

Theory 3 hours - Lab 2 hours

Prerequisite: ELE130

ELE222 Microcomputer Organization and Networking 4 Credits

Study of microcomputer; topics in architecture, operating systems, peripherals, maintaining, troubleshooting and upgrading will be covered.

Theory 3 hours - Lab 2 hours

Prerequisite: ELE130 or instructor approval

ELE227 Computer Networking V 3 Credits

This course will cover advanced routing concepts. Topics include: selecting and configuring scalable IP addresses; implementing technologies to redistribute and support multiple, advanced, IP routing protocols such as OSPF, EIGRP, and BGP; configuring access lists; designing and testing edge router connectivity into a BGP network.

Theory 3 hours

Prerequisite: ELE217 or CCNA curriculum Semester 4

ELE228 Computer Networking VI 3 Credits

This course will cover remote access networks. Topics include configuring Asynchronous connections; Point-to-Point Protocol (PPP) architecture, protocol, callback, and compression; ISDN architecture, protocol layers, BRI and DDR.

Theory 3 hours

Prerequisite: ELE227

ELE229 Computer Networking VII 3 Credits

This course will cover Multilayer switching. Topics include fast Ethernet and Gigabit Ethernet; VLAN basics, types, identification, and trunking protocol; spanning tree protocol; MLS processes; and Multicasting protocols.

Theory 3 hours

Prerequisite: ELE228

ELE230 Computer Networking VIII 3 Credits

This course will cover internetwork troubleshooting. Topics include OSI Layers 1, 2, and 3 troubleshooting; TCP/IP, LAN switching, VLANs, Frame Relay, ISDN, Appletalk, Novell, EIGRP, OSPF, BGP.

Theory 3 hours

Prerequisite: ELE229

ELECTRONIC COMMERCE

ECM101 Foundations of E-Commerce 3 Credits

Doing business on the Internet is the focus of this course. Topics include basic e-commerce principles, electronic payment systems, supply chain management, pricing goods and services, and legal and ethical issues. This course provides coverage of all objectives E-Biz+ Certification.

Theory 3 hours

ECM111 E-Commerce Internet Fundamentals 3 Credits

This course is designed to provide a thorough understanding of the Internet, networking, and electronic publishing basics. Students will learn common Internet tools and technologies, such as browsers, e-mail tools, FTP, telnet; networking standards and terminologies; and web page design fundamentals. This course covers all objectives for the CIW Foundations exam (1D0-410), as well as Comp/TIA I-Net+ exam (IK0-001). Assignments require additional time outside the classroom.

Theory 3 hours

ECM112 Site Design Methodology and Technology 3 Credits

This course covers how to create and manage Web sites using tools such as Macromedia Dreamweaver, Microsoft FrontPage, HomeSite, and Flash as well as other commonly used tools. The course focuses on theory, design and Web construction, along with information architecture concepts, Web project management, and performance evaluations. This course covers all objectives for the CIW Site Designer exam (1D0-420). Additional time is required to complete assignments outside of class.

Theory 3 hours

Prerequisite: ECM111 or CIW Foundations or I-Net+ Certification

ECM113 E-Commerce Strategies and Practices 3 Credits

This course covers doing business on the Internet and how to conduct business online and how to manage the technological issues associated with constructing an e-commerce Web site. Students will design and implement an enabled e-commerce Web site. This course covers all objectives for the CIW Master Designer exam (1D0-425). Additional time is required to complete assignments outside of class.

Theory 3 hours

Prerequisite: ECM112 or passage of CIW Site Design Exam

ECM211 E-Commerce Design/JavaScript and PERL 3 Credits

This course covers JavaScript and PERL, two of the primary scripting languages used for Web design and implementation. Students will learn server-side techniques with PERL, such as file handling and manipulation, data connectivity, and PERL Data Types. Client side scripting will be covered using JavaScript including the JavaScript object model, from validation, animated images, and cookies. This course covers all objectives for the CIW exam (1D0-437). Additional time is required to complete assignments outside of class.

Theory 3 hours

Prerequisite: ECM111 or passage of the CIW Foundations Exam

ECM213 E-Commerce Design/ASP.Net and DHTML3 Credits

This course covers Microsoft's server side and client side scripting languages used to generate on-demand Web pages using Active Server Pages and creating interactive Web pages using VBScript. Server Side Include (SSI), the Document Object Model and Cascading Style Sheets (CCS) using are covered. Additional time is required to complete assignments outside of class.

Theory 3 hours

Prerequisite: CIS213 or ECM111

ECM214 Web Server Administration 3 Credits

Web Server Administration covers configuration, management, troubleshooting, and problem-solving of various web server tools, including Windows IIS and Apache. Students will learn to manage users, implement domain name servers, configure security, configure streaming media, and manager e-mail systems using various protocols. This course covers all objectives for the CIW Web Services Administration exam (1D0-450). Additional time is required to complete assignments outside of class.

Theory 3 hours

Prerequisite: ECM112 or CIW Foundations or I-Net+ Certification

ECM251 Capstone in Internet Design and Electric Commerce 3 Credits

The capstone seminar requires students to assimilate the collective knowledge of their college experience in the form of a portfolio of projects completed in the course of study as well as the completion of a major independent design project. Students will prepare their portfolios for either employment or transfer to a baccalaureate program with guidance by the instructor.

Theory 3 hours

Prerequisite: 45 Credit Hours including CIS227, DMD101, and ECM113

EMERGENCY MEDICAL SERVICES**EMS106 EMT Intermediate Course 4 Credits**

This course includes teachings involved with patient assessment and the prehospital management of airway, shock and cardiac conditions. Endotracheal intubation, peripheral intravenous access, and limited cardiac monitoring and defibrillation skills are included. Upon successful completion of theory, lab and clinical/field objectives, the student is eligible to apply for National Registry of EMT testing at the EMT-Intermediate level.

Theory/Lab 52 hours - Clinical 22 hours (minimum 22)

Prerequisites: Current Ohio EMT-A license; satisfy admission requirements

EMS107 Anatomy and Physiology for Paramedicine 3 Credits

This course introduces the paramedic student to the fundamental principles of the structure and function of the human body. It is primarily designed to provide a basic anatomy and physiology understanding for the paramedic health profession.

Theory 3 hours

Prerequisite: Admission to the paramedic program/program director approval

EMS108 Paramedic Theory and Practice I 10 Credits

This course introduces the paramedic student to preparatory issues such as role and scope of the EMS system and paramedic. Paramedic wellness, ethics, medical legal, pathophysiology, and pharmacological issues will be addressed. Advance airway management techniques, patient assessment, and trauma assessment and management will be reviewed. Lab sessions will reinforce the theory component. Clinical education is planned in the emergency department, operating room, and several elective areas.

Theory 8 hours - Lab 4 hours - Clinical 7 hours

Prerequisites: Admission to the paramedic program; EMS107 or program director approval

EMS109 Paramedic Theory and Practice II 10 Credits

This course teaches medical conditions in which the paramedic may be called upon to render pre-hospital care. Included are assessment and management of cardiac, respiratory, neurological, environmental, obstetric/gynecological, and various other medical conditions. Lab sessions will reinforce the theory component. Clinical education is planned in the emergency room, critical care, cardiac cath lab, and labor and delivery units, as well as field paramedic units.

Theory 8 hours - Lab 2 hours - Clinical 7 hours

Prerequisites: EMS107, EMS108

EMS110 Paramedic Theory and Practice III 5 Credits

This course teaches the paramedic special conditions which may be encountered in the field such as neonatology, pediatrics, special challenge patients, as well as assessment-based management, and EMS operations issues including incident command, rescue operations, haz-mat operations, and crime scene considerations. Lab sessions will reinforce the theory component. Clinical education is planned in the emergency room and field paramedic units which includes a field summative evaluation.

Theory 3 hours - Lab 2 hours - Clinical 8 hours

Prerequisites: EMS109

EMS201 EMS Instructor Course 5 Credits

This course is for certification of EMS instructors in the state of Ohio. The program will provide the student with instruction in the areas of lesson plan design and development, media selection, instructional strategies and instructor presentation skills in the adult learner arena. It also provides an orientation to the structure and design of EMS training materials and a review and update of Ohio EMT-B curriculum knowledge and skill objectives.

Theory/Lab 7 hours - Practicum 10 hours total

Prerequisite: Student must possess a current and valid certificate to practice at the desired teaching level; program director approval

ENGINEERING TECHNOLOGIES**EGT199 MIP Seminar 1 Credit**

This course is required of all students within the Mentoring Incentive Program (MIP) in engineering and science disciplines. Students will become engaged in the foundations of engineering and sciences, will review and be able to seek help with academics, will become familiar with industry requirements and will learn of transfer options. Must be repeated every semester.

Theory 1 hour

Prerequisites: Admission to MIP and dean approval

EGT202 Engineering Management 3 Credits

This course serves to expose engineering students to the management skills needed in a technical environment including: transition from engineer to manager, total quality management, basic management skills, and legal and ethical matters faced by engineering managers.

Theory 3 hours

EGT203 Industrial Safety 3 Credits

This course is a comprehensive approach to the central factors involved in developing safety mindedness, safe practices and conditions. Covered are safety education and training; safety organization; physical factors of plant layout and design; control of industrial hazards through safeguarding; mechanical guards, analysis of typical accident prevention; injury rates; accident costs; occupational hazards and radiation injury protection, fire protection; personal protection equipment, OSHA, standards and industry.

Theory 3 hours

EGT204 Statistical Process Control 3 Credits

An analysis of the step-by-step process for quality/productivity improvement is studied. The steps include project selection, project implementation (data gathering, data analysis, problem solving, interpretation, X-R charts, attribute charts and process capability), project evaluation and continuing improvement strategies.

Theory 3 hours

Prerequisite: MTH110 or higher

EGT290 IT and Engineering Seminar 1 Credit

Taken in conjunction with EGT291, the course is a means of communication between the practicum instructor and the students. Representatives from various industries will present topics such as proper interviewing techniques, resume writing, etc. A student will not ordinarily be permitted to take this course or the associated course, EGT291, unless 46 credit hours have been achieved.

Seminar 1 hour

EGT291 IT and Engineering Practicum 1-2 Credits

Students receive practical on-the-job knowledge of the application of information and engineering technology principles. A student ordinarily will not be permitted to take this course unless 46 credit hours have been achieved or the permission of instructor.

Practicum - A minimum of 105 hours per credit hour

Corequisite: EGT290

EGT299 Special Topics in Information Technologies 1-4 Credits

This course is designed to introduce topics of special interest as well as new technologies. Students will have the opportunity to study technical subject matter not covered in other courses. This course may be used as a technical elective by any student pursuing an engineering technology degree or certificate. May be repeated; however, those students repeating the same "Special Topics" course must notify the registrar.

Theory 1-4 hours

Prerequisite coursework and/or instructor approval may be required

ENGLISH/LITERATURE**ENG081 General English* 5 Credits**

General English is designed to develop language and writing skills in students entering college. This course is considered a prerequisite for ENG093 for certain students as determined by the COMPASS placement testing. Topics covered may include a review of the parts of speech, fragments, run-ons, simple, compound and complex sentences, subject-verb agreement, capitalization, punctuation, misplaced modifiers, dangling modifiers, and parallelism. Word usage and spelling also may be covered. Successful completion of the program is determined by post-testing and using the COMPASS placement test.

Theory 5 hours

* Course not counted toward graduation

ENG082 General Reading* 5 Credits

General Reading is an individualized program designed to develop reading skills in students entering college. This course is considered a prerequisite for ENG091 for certain students as determined by the COMPASS placement testing. After additional testing to determine reading level, activities are planned to improve vocabulary and literal and inferential comprehension as needed. Successful completion of the program is determined by post-testing and using the COMPASS placement test.

Theory 5 hours

* Course not counted toward graduation

ENG091 Introduction to College Reading* 3 Credits

This course is designed to help the student acquire college reading skills by developing a variety of reading techniques, improving perceptual skills and increasing flexibility. Emphasis is on increased comprehension and rate with extensive practice in reading college material.

Theory 3 hours

* Course not counted toward graduation

ENG093 Introduction to College English* 3 Credits

This course is designed to develop basic writing skills. The course reviews composition, reading comprehension, and Standard English strategies. The student must produce several writings. The writing lab and word processing are used.

Theory 3 hours

* Course not counted toward graduation

ENG101 English Composition I 3 Credits

This course is designed to improve writing skills and to introduce basic research skills. Emphasis is placed on writing that is appropriate to the situation and audience in content, organization, tone, and style. Students learn the strategies associated with composing: brainstorming, freewriting, clustering, drafting, revising, editing, and proofreading. Students are required to produce a variety of essays demonstrating skill, and are introduced to library and on-line research methods. A short research paper using MLA documentation is required.

Theory 3 hours

Prerequisite: placement testing

ENG102 English Composition II 3 Credits

This course is designed especially for transfer and associate degree students in science and arts. The course focuses on academic writing. The course emphasizes how to approach topics in the various disciplines and presents different documentation methods. This course requires advanced essay writing and a full-length research paper. The course includes reading and responding to essays, articles, and literature across the academic disciplines.

Theory 3 hours

Prerequisite: ENG101

ENG103 Business Communications 3 Credits

This course is designed to cover the writing projects that are required in the business world. Writing projects focus on business communication needs such as memos, letters, requests, order, and electronic mail. Topics include proper format, psychology of "customer service," job interviewing techniques, legal issues of the workplace, resume writing, and on-line research techniques. A researched business report is required.

Theory 3 hours

Prerequisite: ENG101 or instructor approval

ENG104 Technical and Professional Writing 3 Credits

This course is especially geared to students in technologies. The course is writing-intensive and requires a full-length research paper on a technical subject or a full-length study presented in a manner appropriate to the sciences. It also requires the writing of technical documents such as proposals, instruction, feasibility and informational reports, letters, and memos. Collaborative projects are also included along with correct formatting, electronic communication requirements and issues, and the use of graphic aids in workplace documents.

Theory 3 hours

Prerequisite: ENG101 or instructor approval

ENG 121 Writing for Publication 1 Credit

This course is available for students who wish to have an in-depth criticism of a manuscript or other publications. Also covered will be a survey of writers' markets and the manuscript submission process. Open to writers of the college's literary magazine also.

Theory 1 hour

ENG151 Creative Writing 3 Credits

This course will introduce students to basic techniques and styles used by poets and fiction writers. Students will develop a portfolio of their own writings. Invention exercises and strategies will be emphasized, along with elements of style, plot, character development and theme. Students will also study the works of published writers as models.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

ENG152 Creative Writing and Publication 3 Credits

This course will continue the work begun in ENG151, emphasizing the writing of publishable works. Students will complete, revise, polish, and edit works from ENG151, and will learn the procedures involved in publication, i.e. writing query letters, researching publishers, and finding out about the role of agents.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

ENG153 Grant Writing Seminar 2 Credits

In this seminar the student will meet twice a week for one hour to discuss practicum work and receive instruction in researching and writing grants. This class is to be taken in conjunction with ENG154 Grant Writing Practicum.

Theory 2 hour

ENG154 Grant Writing Practicum 1 Credit

This class is taken in conjunction with ENG153 Grant Writing Seminar. Students will spend seven hours a week working for an organization on grant research and writing under the direction of the instructor.

Theory 1 hour

ENG201 Introduction to Literature 3 Credits

This course introduces students to major forms of literature—poetry, drama, short stories, novels, and/or film—and has them responding to these works with critical thought combined with personal insight and interpretation. Emphasis is on articulating responses and analyses through journal writing, in-class short essay responses, classroom discussions, and out-of-class essays.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

ENG202 Survey of World Literature 3 Credits

A study of stories, poetry, drama and essays from significant writers on six continents, the course promotes world awareness, historical perspective, genre definition and major author identification.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

ENG203 Special Topics in Literature 3 Credits

This course will offer fiction, poetry, essays and drama selected for specific college programs or career areas. Possible special topics might include: business literature, children's literature, women in literature, ethics in the business world, industrialization and the individual, and the environment.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

ENG205 Women in Literature 3 Credits

A survey of the images of women in literature from an historical, critical and thematic perspective is offered. Course focus will be on the stories, poems, and plays in American and British literature.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

ENG207 Film and Literature 3 Credits

This course will examine the various and complex relationships between literature and film. The language of film, the ways film has and does borrow from literature, and the criteria for artistic merit of a film will be studied.

Theory 3 hours

Prerequisite: ENG101 or concurrent enrollment

- ENG208 Short Stories 3 Credits**
A study of short fiction from significant writers on six continents, the course focuses on theme and character analysis, plotting and style features.
Theory 3 hours
Prerequisite: ENG101 or demonstrated writing skills
- ENG212 Environmental Literature 3 Credits**
The focus of this course is on the reading of essays, poems, stories and plays that explore environmental issues or that examine the relationship between human beings and their environments.
Theory 3 hours
Prerequisite: ENG101 or demonstrated writing skills
- ENG213 World Mythology 3 Credits**
This course surveys and compares myths from Greek, Roman, Chinese, Japanese, Scandinavian, Indian and Australian cultures. Significant mythic personages, themes and plotlines are studied for literary and cultural impacts and heritages.
Theory 3 hours
Prerequisite: ENG101 or demonstrated writing skills
- ENG215 Social Issues in Literature 3 Credits**
This course explores plays, poetry, film, short stories, and essays. The emphasis will be placed on examining these works from the unique perspectives of social issues and themes. Such themes will include ethics, morality, satisfying work, happiness and success, and the culture of society.
Theory 3 hours
Prerequisite: ENG101 or demonstrated writing skills
- ENG220 Modern Poetry 3 Credits**
Focus is on the study of modern poetry and its dominant themes. This course will also analyze the forms, images and sounds of poetry.
Theory 3 hours
Prerequisite: ENG101 or demonstrated writing skills
- ENG222 Science Fiction Literature 3 Credits**
A survey of major works of science fiction literature, this course is designed to explore our culture's evolving attitude toward technology and the role it plays in our lives.
Theory 3 hours
Prerequisite: ENG101 or demonstrated writing skills
- ENG223 Shakespearean Plays 3 Credits**
A study of some of Shakespeare's representative tragedies and comedies is offered. Focus will be on the theme, plot and motifs of each play, with some discussion of the background and history of the plays. The course also will examine how the themes of these plays are echoed in modern works of drama and fiction.
Theory 3 hours
Prerequisite: ENG101 or demonstrated writing skills
- ENG230 Advanced Composition and Rhetoric 3 Credits**
This course is primarily for English majors or students interested in language and writing. The course will advance the student's understanding of and give the student practice in the use of language to achieve rhetorical purposes and effects. The student also will be introduced to language issues, problems, and theories via reading and discussion.
Theory 3 hours
Prerequisites: ENG101, ENG102

- ENG251 American Literature 3 Credits**
This course is an examination of various writers and their styles from the historical standpoint from the early American period in the 17th century to the present. The student will gain an appreciation of our literary heritage and writing styles through active classroom discussions and sharing personal interpretations from the reading of various works in different genres.
Theory 3 hours
- ENG252 Survey of British Literature I: 7th Century to 1789 3 Credits**
This course will study major British works from the Anglo-Saxon period to the late 18th century. In addition to reading and interpreting a wide variety of literature, the course also will focus on the literary movements and culture of this period. Critical writing will be required.
Theory 3 hours
Prerequisite: ENG101
- ENG253 Survey of British Literature II: 1789 to 21st Century 3 Credits**
This course will study major British works from the late 18th century to the modern period. In addition to reading and interpreting a wide variety of literature, the course also will focus on the literary movements and culture of this period. Critical writing will be required.
Theory 3 hours
Prerequisite: ENG101

FINANCE

- FIN103 Broker Preparation I 3 Credits**
This course familiarizes the student with the function of the primary and secondary exchanges and markets, including the many procedures surrounding them and the rules and regulations governing them. Various types of securities, bonds, and other obligations, how they are traded, and the duties and responsibilities of the broker are detailed. Special attention is given to helping the student understand exactly how various types of securities fluctuate, and erasing inaccurate but popular beliefs. Other topics covered include interest rates bond maturity and yield. This is the first course of two that prepares the student for the Series 7 Licensure examination.
Theory 3 hours
- FIN201 Principles of Banking 3 Credits**
A comprehensive introduction is presented to the Federal Reserve System, the financial institutions industry, negotiable instruments, the relationship between the bank and its depositors, the deposit and payments function, bank lending and investing, other banking services and correlating topics in banking.
Theory 3 hours
- FIN203 Broker Preparation II 3 Credits**
This course explains how investment companies function. Various categories of long-term investments and retirement plans are explained, including both individual and corporate, as well as the taxation effects of each. An extensive look is taken at assessing clients' needs and suitability, based on factors such as investment objectives and risk tolerance. This course also explains the various types of technical market theories, and how they influence analysis of securities. Other topics covered include the Federal Reserve system, fiscal and monetary policies, and interpreting balance sheets and various other financial statements. This is the second course of two that prepares the student for the Series 7 Licensure examination.
Theory 3 hours
Prerequisite: FIN103

FIN211 Investments 3 Credits

This course combines sound principles of investment theory, personal financial planning and bank investment practices to achieve a twofold goal. First, an understanding of bank investment strategy will be developed. Second, application of modern investment theory to bank investment and personal investing will be presented.

Theory 3 hours

Prerequisite: FIN201 or dean approval

FIN212 Commercial and Consumer Lending 3 Credits

The course provides a conceptual framework for the study of commercial and consumer lending. Focus is placed on the loan process from initial application through collection. Topics include the loan interview, credit evaluation, financial statement analysis, loan structuring and negotiation, documentation, credit techniques and problem situations.

Theory 3 hours

Prerequisite: FIN211 or dean approval

FIN227 Current Topics in Banking and Finance 1-4 Credits

Designed for those entering the banking profession and banking professionals, this course examines one or more of the following topics: commercial bank fund management, financial institution management, regulatory environment of banking, trust management, or other topics of current interest to the profession.

Theory 1-4 hours

Theory and/or lab hours assigned based on topics offered

Prerequisite: FIN201 or dean approval

FORENSICS**FOR200 Police Photography/Surveillance 3 Credits**

The principles of photography and surveillance and their application to police work are studied. The student will become proficient in photographing, darkroom techniques and surveillance techniques.

Theory 2 hours - Lab 2 hours

FOR201 Fingerprint Classification/Identification 3 Credits

This course will provide the student with information and techniques about fingerprint classification/comparison and identification of known and latent prints connected with crime scenes. Newly developed methods utilizing both chemical and instrument technology are included in the laboratory sessions.

Theory 2 hours - Lab 2 hours

Prerequisite: Program director approval

FOR205 Contemporary Topics: Forensics 3 Credits

A special forensic technician course designed to present a student in criminal justice (forensic technician, law enforcement, and corrections) with select topics covering contemporary developments in the area of forensics. Topics may include but are not limited to: blood splatter analysis, drug identification (field), firearms and toolmark identification, document identification, poroscopy (fingerprints), and footwear impressions.

Theory and/or lab hours assigned based on topics offered

FOR205A Forensic Microscopy 3 Credits

A special forensic technician (criminalist) course designed to present the student with information and techniques in the use of the compound, stereo and comparison microscopies to determine class and individual characteristics. This course will include but is not limited to: hairs, fibers and paint chips found at the crime scene.

Theory 2 hours - Lab 2 hours

FOR205B Bloodstain Pattern Analysis 3 Credits

A special forensic technician (criminalist) course designed to present the student with information and techniques used to identify, document, preserve, reconstruct and interpret bloodstain splatter evidence found at the crime scene.

Theory 2 hours - Lab 2 hours

FOR205C Forensic Blood Evidence 3 Credits

This course will cover in detail various aspects of blood analysis in the forensic laboratory. Topics include but are not limited to: serology, DNA and forensic toxicology.

Theory 3 hours

FOR206 Forensic Photography 3 Credits

This advanced course is designed for the criminal justice student with a basic knowledge of camera techniques, police photography and laboratory techniques. It will cover procedures necessary to produce photographs that portray evidence in an absolutely honest and stark manner. The following investigative analysis, special procedures and advanced techniques of criminalistic photography will be covered: filters, infrared, ultraviolet, X-ray, photomicrography, photomacrography, microphotography, videotape, computer imaging, stereoscopic and special lighting techniques. Camera and equipment will be furnished.

Theory 2 hours - Lab 2 hours

Prerequisites/corequisites: CJT100, CJT206, or instructor approval

FOR207 Arson Investigation 3 Credits

This course covers the history, development and philosophy of fire investigation and detection, including inspection techniques, gathering of evidence, development of technical reports, fundamentals of arson investigation, and the processing and criminal procedures related to various state and local statutes.

Theory 2 hours - Lab 2 hours

FRENCH**FRN101 Elementary French I 4 Credits**

This course promotes the understanding, speaking, reading and writing of the French language for the student with no previous experience with the language of French.

Theory 4 hours

FRN102 Elementary French II 4 Credits

This continuation of Elementary French I includes advanced understanding of the French language and French culture.

Theory 4 hours

Prerequisite: FRN101

GENERAL SCIENCE**GSC101 Introduction to Physical Science 4 Credits**

An introduction to the fundamental principles of chemistry, physics and nuclear physics is offered. Intended for the non-science major, this course requires a minimum of science or mathematics background.

Theory 3 hours - Lab 2 hours

Not open for credit toward graduation in science, health, or engineering areas

GSC102 Science and the Environment 4 Credits

For the non-science major, an introductory course concerned with the science concepts behind the 20th and 21st century environmental issues such as the ozone layer, global warming, acid rain and others. Chemical phenomena methodology and theory are set in the context of social, political and economic

issues. Laboratory activities familiarize each student with basic analysis techniques.

Theory 3 hours - Lab 2 hours

Not open for credit toward graduation in science, health, or engineering areas

GSC110 Energy and Society 4 Credits

For the non-science major, an introductory course in the physics principles behind societal uses of energy. Topics include natural resources, environmental problems, traditional and alternative energy systems and energy conservation.

Theory 4 hours

Not open for credit toward graduation in science, health, or engineering areas

GSC299 Special Topics in Science 1-4 Credits

This course is designed to introduce topics of special interest as well as new technologies. Students will have the opportunity to study scientific subject matter not covered in other courses. Course may be repeated; however, those students repeating the same "Special Topics" course must notify the registrar. Prerequisite: coursework and/or permission of the instructor may be required.

Theory 1-4 hours

GEOGRAPHY

GEO101 World Geography 3 Credits

A study and comparison of geographic conditions and differences as they relate to social, cultural, economic and political developments. Selected regions of the world will be studied.

Theory 3 hours

GEOLOGY

GEL111 Earth Science 4 Credits

An introduction to the fundamental principles of astronomy, geology, meteorology and oceanography. A review of the geologic time line also will be included.

Theory 4 hours

Not open for credit toward graduation in science, health, or engineering areas

GEL112 Geology of National Parks 4 Credits

This course will highlight the geological features of many of the National Parks in the United States. The history, location, basic geology and Native American experiences will be covered.

Theory 4 hours

Not open for credit toward graduation in science, health, or engineering areas

GERIATRICS

GER102 Activities Director 6 Credits

This course is designed to provide specialized entry-level skills necessary for the employment as an activities director or the administration of an activity program as required by the Ohio Department of Health. Emphasis is placed on understanding residents and the aging process, causes of disorientation, evaluating outcomes as they relate to activities and education of older adults in the nursing home setting.

Theory 3 hours - Lab 6 hours

HEALTH INFORMATION

HIM103 Introduction to Coding Systems 3 Credits

This course introduces students to the ICD-9-CM classification system, various nomenclature and classifications will be reviewed. Emphasis will be placed on applying coding convention and the use of ICD-9-CM books in the lab setting. Reimbursement issues (inpatient vs. outpatient), DRGs, Medicare/Medicaid and third party reimbursement will be covered.

Theory 2 hours - Lab 2 hours

Prerequisites: BIO101 and HSC101 or professional work experience (minimum of one year working in a doctor's office) or instructor approval

HIM112 Health Care Statistics 3 Credits

The impact of health care statistics on the health care community (local and national) will be examined. Methods of data retrieval from available sources in conjunction with formulas designed for the tabulation of health statistics are used to express health care data. Additional topics include: organization of data measure of central tendency, variability and normal distribution.

Theory 3 hours

Prerequisite: MTH092 or equivalent

HIM210 Advanced Coding 3 Credits

Actual case scenarios are utilized. Emphasis is placed on selection of the principle diagnosis and principle procedure. Diagnosis-related groups (DRGs) and ambulatory patient groups (APGs) will be studied. Coding in non-acute settings will be highlighted.

Theory 2 hours - Lab 2 hours

Prerequisites: HIM103, HSC101, or instructor approval

HIM214 CPT-4 Procedural Coding 3 Credits

This course will introduce CPT-4 coding and HCPCS (medical/surgical supplies ordering) codes in the hospital and physician's office environment. Actual case histories will be used as the student explores reimbursement of medical testing, surgical procedures and ambulatory care.

Theory 2 hours - Lab 2 Hours

Prerequisite: HSC101 or professional work experience (minimum of one year working in a doctor's office) or instructor approval

HIM215 Quality Assurance/Improvement 3 Credits

Quality assurance (QA), utilization review (UR), risk management and total quality management (TQM), and their collaboration with health care as a facilitywide process will be studied. Review programs, retrospective, concurrent and quantitative/qualitative are emphasized. JCAHO and other certifying/licensing agencies regulations as they pertain to specific types of health care facilities are studied.

Theory 3 hours

HEALTH SCIENCES

HSC101 Medical Terminology 2 Credits

This course is designed to equip the student with a working knowledge of the most common root words, prefixes and suffixes in medical terminology. Emphasis is placed on spelling, pronunciation, use of the medical dictionary, vocabulary building and common abbreviations.

Theory 2 hours

Prerequisite: Completion of ENG091 if required by placement testing and computer literacy

HSC102 First Aid/CPR 1 Credit

Knowledge and skills that are needed for the emergency care of the injured and ill until medical care can be obtained are presented. The prevention of disease transmission and accidents is included. The student also demonstrates first aid techniques and cardiopulmonary resuscitation. Attendance at all scheduled class sessions is mandatory in order to satisfy course requirements. American Heart Association Basic Life Support Health Care Provider and National Safety Council Bloodborne Pathogen and First Aid Cards are issued after satisfactory completion of course requirements.

Theory/Lab 20 hours total

HSC103 Law and Ethics 1 Credit

Legal aspects including legislation, statutes, licensure, malpractice and arbitration are presented. Ethical conduct, issues and bioethics also are covered with application in the medical office.

Theory 1 hour

HSC104 Medical Insurance 2 Credits

This course is designed to present a practical approach to insurance billing. The student will abstract information from patient records to complete an insurance claim accurately. Content includes basic medical and insurance abbreviations and terms; the most characteristic types of insurance coverage available in the U.S. (unemployment compensation, disability, worker's compensation, industrial insurance, federal Medicare, state Medicaid, group plans such as Blue Cross and Blue Shield, and Champus); computerized billing; and the physician's personal insurance.

Theory 2 hours

HSC106 Business Administration-Health Office 3 Credits

This computerized medical office practices course includes scheduling of patients, filing, typing and transcription techniques necessary to keep accurate financial records. Insurance forms as well as hospital forms will be included. The use of CPT-4 and ICD 9 Codes will be used to complete medical, patient and insurance records on a computer.

Theory 2 hours -- Lab 2 hours

Corequisites: HSC101, OIT102

HSC108 Nurse Aide TCE Program 5 Credits

This course is designed to provide specialized entry-level employment with long-term nursing/health care and retirement agencies as a nurse aide. The nurse aide is responsible for providing direct resident care under supervision of a registered nurse. The program provides theory, laboratory practice, and supervised patient care (clinical) as required by the Ohio Department of Health. After successful completion of the entire course, the student will be eligible to take the Ohio competency examination.

Theory 4.5 hours - Lab 0.5 hours

Prerequisite: Based college placement test

HSC109 Introduction to Homemaker-Home Health Aid 1 Credit

This course is designed to provide specialized entry-level employment with assisted living agencies as a home health aid. Curriculum includes the four sections of the National Home Caring Council's requirements for sitting for the national exam: maintaining a clean, safe and healthy home environment; food and nutrition; managing time, energy, money and other resources; and home maintenance when disease is present. Topics include the general guidelines for cleaning a house, nutritional problems of the aged and ill (including modified diets), use of resources and infectious disease control. After

successful completion of the entire course, the student will be eligible to take the national competency examination.

Theory 1 hour

Prerequisite: HSC108 or advisor approval

HSC110 Special Topics in Electrocardiography 2 Credits

In this course, the student will learn the basic anatomy and physiology of the heart; the theory and practice of the EKG; and how to interpret basic arrhythmias. The student also will learn how to prepare a patient physically and psychologically for an EKG, and how to recognize and correct artifacts.

Theory 1 hour - Lab 2 hours

HSC111 Routine Venipuncture 1 Credit

This course will teach the student basic skills to perform routine venipuncture using a needle and syringe, and vacuum system. The student must be a current health technology student or a graduate from an approved one-year health technology program.

Theory/Lab 20 hours total

Prerequisite: BIO101 or BIO102

HSC112 Special Phlebotomy Procedures 1 Credit

This course will teach the student skills to perform capillary puncture; venipuncture using the butterfly technique; and special drawing procedures such as blood cultures, glucose tolerance test and bleeding times. Successful completion of both basic skills courses (HSC111 and HSC112) **does not qualify** the student as a phlebotomist or as eligible to sit for certification.

Theory/Lab 20 hours total

Prerequisite: Successful completion of HSC111

HSC113 Intravenous Therapy 2 Credits

This course will prepare the health professional to initiate and provide limited peripheral intravenous therapy. The student must be employed as a LPN or RN. This course is approved by the Ohio Board of Nursing and LPNAO. Approval OBN-002-92. The student is awarded a certificate upon successful completion of this course.

Prerequisites: Student must present current LPN license and valid pharmacology card; current RN license first class

HSC114 Women's Health 3 Credits

This course will provide a holistic view of women's health issues, including the life cycle, health promotion and maintenance, and psychosocial issues. Each topic will include the unique qualities and needs of women with regard to health. Topics may include birth control, pregnancy, menopause, diet, exercise, violence, self-esteem and relationships.

Theory 3 hours

HSC115 Stress Management 1 Credit

This course will provide a holistic view of stress, including the physical, mental, emotional, social and spiritual factors which cause stress. The student will learn how to recognize the symptoms of stress, and learn effective and constructive ways of coping with the effects of stress. Topics may include wellness, nutrition, eating disorders, communication skills, depression and anger, self-esteem, relaxation techniques and job burnout.

Theory 1 hour

HSC116 Principles of Wellness 3 Credits

This interdisciplinary course will emphasize the importance of self-responsibility and lifestyle choices which promote good health and overall wellness. The physical, mental, social, spiritual, emotional and occupational dimensions of wellness will be addressed. Topics will include nutrition, exercise, stress

management, relationships, self-esteem, career satisfaction, self-care and other areas related to the wholistic health of the individual.

Theory 3 hours

HSC117 Weight Management 1 Credit

This course will discuss the three basic elements of successful, long-term weight management: proper diet and nutrition, physical exercise and behavioral changes. Topics also will include eating disorders, fad diets and body image.

Theory 1 hour

HSC119 Respiratory Care Monitoring 1 Credit

This course will assist health care professionals, especially nurses, in broadening their knowledge of respiratory care monitoring. Topics may include respiratory physical assessment, capnography, oximetry, ventilator monitoring, airway care and home respiratory care.

Theory/Lab 20 hours total

HSC120 Point-of-Care Testing 1 Credit

This course will identify new technologies in point-of-care testing being used in intensive care units, emergency rooms and operating rooms, as well as skilled nursing facilities, hospices, etc. Laboratory evaluations and regulations in blood gas, glucose, electrolyte, cardiac markers and coagulation testing at or near the bedside will be discussed.

Theory/Lab 20 hours total

Prerequisites: successful completion of HSC111, HSC112 (C or above) or proof of phlebotomy skills

HSC202 CPR Instructor Course 1 Credit

This course teaches the knowledge and instructional methods used in conducting a Basic Life Support (BLS) class according to the American Heart Association (AHA). The course completion card is issued for two years.

Theory/Lab 20 hours total

Prerequisite: current AHA-Health Care Provider (HCP) or American Red Cross Professional Rescuer CPR card; an understanding of BLS instructor retraining requirements

HISTORY

HIS101 World Civilization I 3 Credits

A study of the major social, political, religious, economic, cultural and intellectual events in world civilization through the year 1648 is given.

Theory 3 hours

HIS102 World Civilization II 3 Credits

A study of the major social, political, religious, economic, cultural and intellectual events in world civilization since the year 1648 is presented.

Theory 3 hours

HIS104 U.S. History - The Formative Period 3 Credits

A survey of United States history through 1877, the course covers the description and analysis of the major factors accounting for the transformation of the earliest settlements into a sovereign national power. Emphasis is placed on the role of immigration and the economic and political forces that shaped the United States.

Theory 3 hours

HIS105 U.S. History - The Modern Period 3 Credits

A survey of United States history since 1877 is offered in this course which covers the description and analysis of the rise of corporations, the development of an urban labor force, the changing role of government, and the integration of the United States into a global political and economic system.

Theory 3 hours

HIS107 History of Labor in America 3 Credits

This course provides the student a general study of the history of labor in America from colonial period to the present. Included is the study of labor systems in America and what events in history formed the labor system into what it is today.

Theory 3 hours

HIS109 History of Soviet Russia 3 Credits

Students will study, in general, the events that transformed Russia into the Soviet Union and the history of the nation until its demise and where it is today.

Theory 3 hours

HIS110 History of Modern Europe 3 Credits

This course analyzes the modern political, social and economic changes that have occurred in Europe from World War I to the present including the influences of the U.S. on the development of European societies.

Theory 3 hours

HIS112 Great Women in History 3 Credits

A study of women who have influenced the history of the world including their social, political and economic impact from BC to the present.

Theory 3 hours

HIS115 Great Men in History 3 Credits

A study of men who have influenced the history of the world including their social, political and economic impact from BC to the present.

Theory 3 hours

HIS118 Renaissance and Reformation 3 Credits

This course examines the political, economic, social and religious aspects of the renaissance and reformation period in history from 1400 to 1648 AD.

Theory 3 hours

HIS240 Special Topics in History 1-3 Credits

This course offers advanced history topics selected by the dean and faculty that satisfy student needs and general studies/social science requirements.

Theory 1-3 hours

Theory and/or hours assigned based on topics offered

HUMANITIES

HUM121A Cultural Heritages I: Creations and Discoveries of the Human Mind and Spirit 1 Credit

The course examines literature, art, music, film, myth, and philosophy under the umbrella of great ideas. The course contains elements of cultural diversity and includes oral and written communications, problem-solving, use of technology, and teamwork.

Theory 1 hour

HUM121B Cultural Heritages II: The When, What, Why, and Where of Human Behavior 1 Credit

The course examines communication, psychological, and sociological behaviors along with historical and political events that result from behavior, using the media as a unifying factor. The course contains elements of cultural diversity and includes oral and written communications, problem-solving, use of technology, and teamwork.

Theory 1 hour

HUM121C Cultural Heritages III: Understanding and Manipulating the Human Environment 1 Credit

The course includes technology, environmental and natural science, geography, math and finance, and issues of health and safety, which will be examined in the light of one key area or event. The course contains elements of cultural diversity and includes oral and written communications, problem-solving, use of technology, and teamwork.

Theory 1 hour

HUM240 Special Topics in Humanities 1-3 Credits

This course offers advanced humanities topics selected by the dean and faculty that satisfy student needs and general studies/social science requirements.

Theory 1-3 hours

Theory and/or hours assigned based on topics offered

JOURNALISM**JRN101 Basic Journalism 3 Credits**

Students will learn the basics of writing for newspapers, magazines, and electronic media. This course will cover writing and interviewing techniques, journalism ethics, proper style and organization and editing. Students will write a variety of articles on assignment representative of the diverse situations encountered by a working journalist. Basic layout techniques will be presented.

Theory 3 hours

JRN201 Journalism and the Media 3 Credits

In this course students will learn advanced techniques used in writing for newspapers, magazines, and electronic media with a much stronger emphasis on electronic media and the ways technology is changing modern news reporting. Students will complete a variety of writing assignments under real-life, hands-on conditions designed to prepare them for work as print, radio, or television journalists. The history and evolution of journalism, basic media law, and the complex, ethical issues faced by working journalists will be presented.

Theory 3 hours

MANAGEMENT**MGT201 Principles of Management 3 Credits**

This course is a study of the four management functions of planning, organizing, directing and controlling used in organizations. This includes topics on decision-making, human relations, effective communications, group dynamics, change, leadership, motivation, ethics, quality and social responsibility.

Theory 3 hours

MGT202 Organizational Behavior 3 Credits

This course investigates the individual and group behavior at work while pursuing the nature of group dynamics and corporate culture. It involves the study of what people do in an organization and how the behavior affects the performance of

the organization and emphasizes behavior related to jobs, absenteeism, employment turnover, productivity, human performance and management.

Theory 3 hours

MGT205 Introduction to Quality Improvement 3 Credits

This course introduces students to a systematic approach for applying quality technology to improve production in any type of organization. This includes the history of total quality management, analysis of customers' needs, power of process, empowerment, supplier quality and performance measurement.

Theory 3 hours

Prerequisite: Completion of 30 hours

MGT208 Human Resources Management 3 Credits

This course provides information necessary to develop policies and programs that attract, retain and motivate employees and includes staffing, leadership, supervision, discipline, training, labor management relations, compensation plans, benefits and appraisal systems.

Theory 3 hours

Prerequisite: MGT201 or instructor/dean approval

MGT210 Leadership Development and Team Building 3 Credits

This course has as its central focus the development of leadership ability. It provides a basic understanding of leadership and group dynamics theory, and an awareness of one's own ability and style of leadership. It provides the opportunity to develop essential leadership skills through the study and observation of these skills and the engaging in productive leadership behavior. It is a writing intensive course.

Theory 3 hours

MATHEMATICS**MTH081 General Math* 5 Credits**

This course is for those who need a review of basic arithmetic as indicated by the COMPASS placement testing. This course is designed to meet the needs of the individual student before the student enters the college classroom. Topics include addition, subtraction, multiplication and division of whole numbers, fractions, and decimals. Also included are percents and story problems involving arithmetic. This course covers basic calculator skills, order of operations, scientific notation, and beginning algebra skills.

Theory 5 hours

* Course not counted toward graduation

MTH090 Algebra Review 3 Credits

This course is designed to provide high school students with a review of algebra. Topics include real numbers and variable expressions, first-degree equations and inequalities, linear equations in two variables, systems of linear equations, polynomials, factoring, rational expressions, rational exponents and radicals, and quadratic equations. This course does not replace/substitute MTH081, MTH096, MTH097, MTH098, or MTH099.

Theory 3 hours

Prerequisite: Students must have completed at least two years of high school algebra

- MTH096 Fundamental Mathematics*** **2 Credits**
 This course and its successors (MTH097, MTH098 and MTH099) are designed to provide the student with sufficient skills in mathematics to enroll in MTH110 or MTH120. Topics include a review of fractions, decimals and percents, the metric system, ratios, signed numbers, order of operations, combining like terms, distributive property and solving simple equations.
 Theory 2 hours
 Prerequisite: MTH081 or appropriate score on college placement test
 * Course not counted toward graduation
- MTH097 Introductory Algebra*** **3 Credits**
 This course is a continuation of MTH096. Topics include solving linear equations and inequalities, applied linear problems, exponents, changing from exponential form to logarithmic form, polynomials, factoring, and rational expressions and equations.
 Theory 3 hours
 Prerequisite: MTH096 with a minimum grade of "C" or appropriate score on college placement test
 * Course not counted toward graduation
- MTH098 Fundamental Geometry*** **2 Credits**
 This course will cover the fundamental concepts of geometry. Topics include basic geometric shapes and formulas, Pythagorean Theorem and basic right triangle properties, area, volume, and application problems.
 Theory 2 hours
 Prerequisite: MTH097 with a minimum grade of "C" or appropriate score on college placement test
 May take MTH099 and MTH098 in the same semester
 * Course not counted toward graduation
- MTH099 Intermediate Algebra *** **3 Credits**
 This course is a continuation of MTH097 and is the final course in a mathematical sequence (MTH096, MTH097, MTH098, and MTH099) designed to provide the student with sufficient skills in mathematics to enroll in MTH110 or MTH120. A study of graphing, functions, system of equations, radical, quadratic equations, circles and parabolas is presented.
 Theory 3 hours
 Prerequisite: MTH097 with a minimum grade of "C" or appropriate score on college placement test
 May take MTH098 and MTH099 in the same semester
 * Course not counted toward graduation
- MTH100 Mathematics for Elementary Teachers I** **4 Credits**
 This course and its successor (MTH101) form a mathematical sequence intended for students interested in transferring into elementary education programs and related fields. Topics include problem-solving, sets, functions and logic, numeration systems, integers, rational numbers, exponents and decimals and mathematical applications. Teach techniques, recognition and use of connections among math ideas, and proper use of mathematical language will be stressed. Manipulatives also are introduced and activities that can be used in an elementary math classroom are presented.
 Theory 4 hours
 Prerequisites: MTH096 with a minimum grade of "C" or appropriate score on ACT, SAT, or college placement test. For students with no algebra background, MTH097 is also strongly recommended.

- MTH101 Mathematics for Elementary Teachers II** **4 Credits**
 This course and its predecessor (MTH100) form a mathematical sequence intended for students interested in transferring into elementary education programs and related fields. Topics include introductory geometry, construction and similarity, areas of polygons and circles, motion geometry and tessellations, and probability and statistics.
 Theory 4 hours
 Prerequisite: MTH100 with a minimum grade of "C"
- MTH102 Survey of Mathematics** **3 Credits**
 This course is intended for students who require a broad-based general overview of mathematics, especially those majoring in liberal arts. Topics include critical thinking skills, sets, logic, functions, geometry, probability, statistics, and graph theory. This course also includes persons and discoveries important to the discipline of mathematics.
 Theory 3 hours
 Prerequisite: MTH097 with a minimum grade of "C" or appropriate score on college placement test
- MTH110 Technical Algebra** **3 Credits**
 This course covers equations and their graphs, systems of linear equations, review of factoring, quadratic equations, exponents and radicals, exponentials and logarithms, and inequalities and absolute value.
 Theory 3 hours
 Prerequisite: MTH098 and MTH099 with a minimum grade of "C" or appropriate score on ACT, SAT, or college placement test
- MTH111 Technical Trigonometry** **3 Credits**
 This course covers right-triangle trigonometry, trigonometric functions, oblique triangles and vectors, graphing trigonometric functions, complex numbers and polar coordinates, and analytic geometry.
 Theory 3 hours
 Prerequisite: MTH098 and MTH099 with a minimum grade of "C" or appropriate score on ACT, SAT, or college placement test
- MTH120 College Algebra** **4 Credits**
 This course covers linear, quadratic, and absolute value equations and inequalities, graphs of elementary functions and non-functions, graphing of polynomial and rational functions, zeros of polynomial functions including the Fundamental Theorem of Algebra, exponential and logarithmic functions including graphs and applications, conic sections, systems of equations using matrices and determinants, matrix algebra, and partial fraction decomposition. Meets the general education requirement for AA degree..
 Theory 3 hours
 Prerequisite: MTH098 and MTH099 with a minimum grade of "C" or appropriate score on ACT, SAT, or college placement test
- MTH121 College Trigonometry** **3 Credits**
 This course is the second part of an algebra-trigonometry sequence. Topics include trigonometry functions and their graphs; trigonometric identities and equations; applications of trigonometry; complex numbers; and analytic geometry.
 Theory 3 hours
 Prerequisite: MTH098 and MTH099 with a minimum grade of "C" or appropriate score on ACT, SAT, or college placement test

MTH128 Statistics 3 Credits

An introduction to statistics is given, including data, graphic representation, measures of central tendency and dispersion, probabilities, types of distribution, sampling, hypothesis, testing and elementary aspects of correlation.

Theory 3 hours

Prerequisite: MTH096 with a minimum grade of "C" or appropriate score on ACT, SAT, or placement test or dean approval

MTH210 Technical Calculus I 3 Credits

An introduction to differential and integral calculus, this course includes differentiation and integration of algebraic and transcendental functions with applications to science and engineering.

Theory 3 hours

Prerequisites: MTH110 and MTH111 with a minimum grade of "C" or appropriate score on ACT, SAT, or college placement test

MTH211 Technical Calculus II 3 Credits

A continuation of MTH210, course emphasis is placed on problem solution and application of the derivative and definite integral. Topics include derivatives and integrals of transcendental functions and methods of integration.

Theory 3 hours

Prerequisite: MTH210

MTH220 Calculus and Analytic Geometry I 5 Credits

An introduction to differential and integral calculus, this course includes differentiation and integration of algebraic and transcendental functions with applications to science and engineering. This course meets the general educational requirement for Associate of Science and Associate of Arts degrees.

Theory 5 hours

Prerequisites: MTH120 and MTH121 with a minimum grade of "C" or appropriate score on ACT, SAT, or college placement test and four years of college preparatory mathematics (including pre-calculus)

MTH221 Calculus and Analytic Geometry II 5 Credits

A continuation of Calculus and Analytical Geometry I, this course includes further calculus of transcendental functions; techniques of integration; polar coordinates; conic sections; and infinite series with applications to science and engineering. This course meets the general education requirement for Associate of Science and Associate of Arts Degrees.

Theory 5 hours

Prerequisite: MTH220 with a minimum grade of "C"

MTH222 Calculus and Analytic Geometry III 5 Credits

This course includes the topics of parametric equations; solid analytical geometry; vectors and vector functions; multi-variable calculus; partial derivatives; multiple integrals; and introduction to linear algebra.

Theory 5 hours

Prerequisite: MTH221 with a minimum grade of "C"

MTH224 Calculus for Business and Life Sciences 4 Credits

Designed for business and life science majors, course topics include limits, continuity, the derivative and techniques of differentiation; graphing techniques; logarithmic and exponential functions; antiderivatives, definite integrals and techniques

of integration; and applications of the derivative and integral to business and life science. This course is not open to students with credit in MTH220.

Theory 4 hours

Prerequisite: Satisfactory math assessment score and four years of college preparatory mathematics, or MTH120

MTH230 Differential Equations 4 Credits

Topics of this ordinary differential equations course include techniques of first order differential equations; existence and uniqueness theorems for solutions; solutions of linear differential equations; systems of linear differential equations; LaPlace transforms and solutions of initial value problems.

Theory 4 hours

Prerequisite: MTH222 with a minimum grade of "C"

MECHANICAL ENGINEERING TECHNOLOGY**MCH102 Industrial Hydraulics 3 Credits**

This is a basic course in the principles and theory of industrial hydraulics/pneumatics and the components of industrial hydraulic/pneumatic systems. Included are cylinders, pumps piping, motors, valves, flow control, pressure control valves and electrohydraulics. Fluid characteristics, basic troubleshooting and maintenance are included.

Theory 2 hours - Lab 2 hours

MCH110 Engineering Materials 2 Credits

The field of material design engineering will be explored. The fundamental principles of industrial materials technology will be introduced. The material systems of metals, ceramics and polymers will be covered. Some information on composites also will be included. Atomic bonding systems, crystalline and amorphous structures of solids will be developed. Mechanical, chemical, physics properties and their measurement through physical testing will be explored. An emphasis on metals as an engineering material will be made.

Theory 2 hours

MCH201 Applied Mechanics I (Statics) 3 Credits

This course provides analytical and graphical solutions of problems involving forces, moments, couples, equilibrium, forces in trusses, frames, simple machines and friction C.G. and moment of inertia. Emphasis is on solution of problems by logical process rather than by memorization of rules and/or formula.

Theory 3 hours

Prerequisite: MTH110

Corequisites: MTH111, PHY106

MCH202 Applied Mechanics II (Dynamics) 2 Credits

This course stresses analytical and graphical solutions of problems involving linear and angular motion and acceleration; instantaneous centers; work energy and power; impulse and momentum. Emphasis is on solution of realistic problems by reasoning with a minimum of formula memorization.

Theory 2 hours

Prerequisite: MCH201

MCH204 Introduction to Manufacturing Process 3 Credits

This course introduces the study of manufacturing processes, including machine tools. Topics include basic metal cutting process, such as lathe, mill, drill press, and grinder. Additionally, basic welding process (MIG & TIG) will be covered.

Theory 2 hours - Lab 2 hours

Prerequisite: MTH096 or equivalent

MCH206 Applied Thermodynamics**3 Credits**

Application of the first and second laws of thermodynamics, the energy equation of gases, Mollier diagrams, energy utilization and heat transfer are studied. Topics include specific heat, the Carnot cycle, entropy, enthalpy and adiabatic processes. System studies include steam generation turbines, internal combustion engines and mechanical refrigeration.

Theory 3 hours

Prerequisite: MTH210

MCH208 CNC (Lathe and Milling)**3 Credits**

This course provides an introduction to numerical control (NC) and computer numerical control (CNC) on lathe and vertical milling machine. Math required and machinery practices are reviewed. NC axes for various machines and standards for NC are studied. Lab work will use lathe and mill and Cortini lathe programming, using G and M industrial codes.

Theory 2 hours - Lab 2 hours

Prerequisite: MTH110

Corequisite: MTH111

MCH209 FMS (Flexible Manufacturing System)**3 Credits**

Introduction to industrial robots and robots classification, and the application of robots in industry are presented. Various types of robotic systems will be covered as well as an introduction to the programming of robots in a flexible manufacturing system (FMS). Two D & M robots are programmed and coordinated with the milling and the lathe machines to produce a bench-mounted FMS. Programming of the robots is done both on the PC and "teach" pendants.

Theory 2 hours - Lab 2 hours

Prerequisite: MCH208

MCH210 Strength of Materials**3 Credits**

Study is made of the application of external loads to rigid bodies and the analysis of the resulting stresses, strains, moments and shear diagrams. Topics include thermal expansion, bolted and welded joints, thin walled pressure vessels, beam stresses and deflection, beam design, column stresses and design.

Theory 2 hours - Lab 2 hours

Prerequisite: MCH201 preferred

MCH220 Technical Project**2 Credits**

This course is to provide for supervised independent study or projects in Mechanical Engineering Technology and is only for students in their last semester. Student will prepare research reports and present oral report.

Theory 2 hours

Prerequisite: Advisor approval

MCH230 Mechanical Component Design**3 Credits**

This course is intended as a basic course in mechanical engineering design of machine components. After a review of basic fundamentals of strength of materials, material properties and mechanics, students will apply these concepts to specific machine components, such as gears, bearings, springs, shafts, clutches, brakes, belts, couplings and more.

Theory 3 hours

Prerequisite: MCH210

Corequisite: MCH202

MEDICAL ASSISTING TECHNOLOGY**MAS101 Introduction: Medical Assisting****4 Credits**

This course is designed to familiarize the student with the role of the medical assistant and includes fundamental microbiology and the role of microorganisms in diseases. Preparation of the patient for examination in the physician's office including specialty exams and procedures is explored. The importance of nutrition to health; care of instruments; the processing and sterilization of supplies; sterile technique; application of dressings; and suture removal is studied.

Theory 3 hours - Lab 2 hours

Lab fee includes liability coverage

Prerequisite: Admission to Medical Assisting Program;

BUS111, HSC101, OIT102

MAS102 Medical Assisting Clinical Skills**4 Credits**

This course is designed to familiarize the medical assistant with obtaining and recording vital signs; special diagnostic procedures including electrocardiography; the preparation and calculation of medications; and proper techniques for drug administration.

Theory 3 hours - Lab 2 hours

Prerequisites: Minimum of a "C" in HSC101, HSC103, BIO101, BUS111, MAS101

MAS103 Medical Assisting Laboratory Skills**2 Credits**

This course is designed to introduce the medical assistant to diagnostic laboratory procedures performed in the physician's office. Principles of laboratory procedures and techniques are cultivated by observation, discussion, study and practice in the laboratory sessions. Emphasis is on collection, proper handling and identification of specimens. Basic hematologic procedures including hematocrit, hemoglobin, sedimentation rate determination and routine urinalysis are included.

Theory 1 hour - Lab 2 hours

Prerequisites: Minimum of a "C" in HS101, HSC103, BIO101, BUS111, MAS101; limited to medical assisting majors

MAS104 Medical Assisting Seminar**1 Credit**

This seminar is designed to give the student the opportunity to discuss the practical experiences of MAS105. Guest speakers are invited to discuss available community resources and present topics dealing with clinical and administrative aspects of the medical office.

Seminar 1 hour (Blocked in 5-week Summer Session I)

Prerequisites: Successful completion of all general, technically related, and technical courses included in the first two semesters of the MA program; and practicum coordinator approval

Corequisite: MAS105

MAS105 Medical Assisting Practicum**2 Credits**

An opportunity is provided for practical application of the principles and skills gained during the previous two semesters. Students are assigned to a physician's office, health center, or clinic for observation and supervised practical experience. The student is required to keep a log of daily practicum experiences.

Practicum 32 hours (blocked in 5-week Summer Session I)

Prerequisites: Successful completion of all general, technically related and technical courses included in the first two semesters of the MA program; a practical proficiency exam and practicum coordinator approval are required if one year has elapsed since completion of MAS101, MAS102, and MAS103

Corequisite: MAS104

Music

MUS101 Music Appreciation 3 Credits

This course provides an overview of music history including the Middle Ages, Renaissance, Baroque, Classical, Romantic periods and 20th Century trends. Styles, mediums and prominent composers are discussed, while their principal works are heard. Parallels to other art forms are drawn, enabling students to more clearly comprehend the evolution of music.

Theory 3 hours

MUS102 Music Fundamentals 3 Credits

A creative approach to music fundamentals is undertaken by placing an equal emphasis on conceptual understanding and skills mastery through drilling and practice. The student will become appreciative of the concise nature of music and literate in its language.

Theory 3 hours

MUS121 Special Topics in Music 3 Credits

This course offers topics in music selected by faculty that satisfy student need and humanities requirements.

Theory 3 hours

Office Information

OIT101 Keyboarding for the Professional 1 Credit

Students without experience in the development of keyboarding techniques will have individual instructions and use of computers to help them develop skills and master the keyboard.

Lab 2 hours

OIT102 Keyboarding/Speedbuilding for the Professional 2 Credits

This course begins with OIT101 Keyboarding and continues to develop speed and accuracy through the use of computers.

Theory 1 hour - Lab 2 hours

OIT103 Keyboarding/Speedbuilding/Formatting 3 Credits

This course begins with OIT102 and continues with special emphasis on formatting, business correspondence, manuscripts, tabulations and business forms. Office assistant technology majors should enroll for this course.

Theory 1 hour - Lab 4 hours

OIT104 Basic Keyboarding for the Medical Assistant 2 Credits

The student will learn the basic keyboard while developing medical language skills and grammatical and office skills. Speedbuilding will use medical material.

Theory 1 hour - Lab 2 hours

OIT108 Document Editing/Proofreading/Formatting 3 Credits

This course will develop and/or strengthen basic language and formatting skills to enable the student to proofread and edit business documents.

Theory 3 hours

OIT113 Advanced Formatting/Speedbuilding 3 Credits

This course continues development of keyboarding techniques to improve speed and accuracy. Emphasis is on producing mailable copies of business correspondence, forms, tabulations, rough drafts and allied data.

Theory 1 hour - Lab 4 hours

Prerequisite: OIT103

OIT114 Legal Typing/Keyboarding 2 Credits

Practical applications are offered in real estate property transfer; litigation; wills, estates and guardianship; partnerships and corporations; and legal correspondence.

Theory 1 hour - Lab 2 hours

Prerequisite: OIT103

OIT202 Introduction to Word Processing 2 Credits

An introduction to the theory, concepts and basic functions for Microsoft Word for Windows, the course includes basic word processing, keyboarding, basic storing and editing. Assignments require lab time outside of class.

Theory 2 hours

Prerequisite: OIT102 or OIT104 or dean approval

OIT203 Advanced Word Processing 3 Credits

An introduction to word processing and its basic functions is offered along with further development of keyboarding skills, basic storing and document editing. Assignments require lab time outside of class.

Theory 3 hours

Prerequisite: OIT103 or instructor/dean approval

OIT207 Office Publications 3 Credits

Students learn to create professional-looking business documents, including newsletters, flyers, brochures and letterheads; modify predesigned templates; use graphics; and design their own documents. Course stresses writing, creativity, problem-solving and decision-making in preparation for an entry-level job.

Theory 3 hours

Prerequisite: OIT102

OIT208 Graphical Presentation Concepts 3 Credits

Microsoft PowerPoint is a complete presentation graphics program that will allow users to produce professional-looking presentations using overhead transparencies, 35mm slides, and handouts. Students will create presentations using tables, graphs, pictures, video, and animation effects. Students will be required to develop presentations in a team environment. Assignments require lab time outside of class.

Theory 3 hours

Prerequisite: CIS100W or instructor approval

OIT210 Executive Machine Transcription 4 Credits

Students transcribe from recorded dictation. Emphasis is on business correspondence and theory, spelling, punctuation and listening skills.

Theory 2 hours - Lab 4 hours

Prerequisite: OIT203

OIT211 Legal Machine Transcription 4 Credits

Students learn to transcribe from recorded legal dictation and progress to more complex legal transcription that includes theory, legal terminology, punctuation and spelling.

Theory 2 hours - Lab 4 hours

Prerequisites: OIT203, OIT114

OIT212 Medical Machine Transcription 2 Credits

Students learn to transcribe from recorded medical dictation and progress to more complex medical transcription that includes theory, medical terminology, punctuation and spelling.

Theory 1 hour - Lab 2 hours

Prerequisite: HSC101; OIT203 or OIT202 or dean approval

OIT214 General Office Procedures 2 Credits

The course focuses on both the computerized and noncomputerized administrative tasks performed by secretaries and administrative assistants in today's electronic office. Topics include the high-tech workplace, success behaviors, office communications, meetings, conferences, travel, mail, records management, and career advancement.

Theory 2 hours

Prerequisite: OIT103

OIT222 Advanced Medical Machine Transcription 2 Credits

The advanced course provides additional, progressively more complex transcription of recorded medical dictation including theory, medical terminology, punctuation and spelling.

Theory 1 hour - Lab 2 hours

Prerequisite: OIT212

OIT224 Records Management 3 Credits

Emphasis is placed on the principles underlying the effective management of records. The student is introduced to the criteria by which records are created, stored, retrieved, retained and disposed of; ARMA rules for alphabetic indexing; the foundation of records storage methods; and alphabetic, numeric, geographic, subject and chronological methods of filing. The course includes an introduction to computer application of records management. Assignments require lab time outside of class

Theory 3 hours

OIT228 Web Concepts for Administrative Assistants 3 Credits

Students will use Microsoft FrontPage 2000 to create documents in an HTML format, connected by hypertext. Topics will include linking Web pages, formatting text on a Web page, inserting pictures, creating hyperlinks, creating and modifying tables, and Web page management.

Theory 3 hours

OIT250 Office Practicum 2 Credits

The student will work in an actual business office situation for a minimum of 210 hours. The office will be chosen so that each student is exposed to as many different facets of the modern office as possible.

Practicum - A minimum of 210 hours

Prerequisite: Instructor approval

OIT251 Office Practicum Seminar 1 Credit

This seminar is taken in conjunction with OIT250. The practicum is enhanced by a discussion of experiences and current office information topics. Guidelines for enrollment are available from the program director.

Seminar 1 hour

Prerequisite: Instructor approval

PEACE OFFICERS ACADEMY (POLICE ACADEMY)**POA110 Firearms 2 Credits**

This course follows the curriculum of the Ohio Police Officers Training Council's Basic Police Academy including safety procedures, fundamentals of pistolcraft and proper handling of the shotgun.

Theory 1 hour - Lab 3 hours

Prerequisites: Based on college placement test; must meet all requirements of the Ohio Peace Officers Training Academy

POA111 NHTSA Standards and Procedures 4 Credits

This course follows the curriculum of the National Highway Traffic Administration for traffic safety in stopping any approaching motor vehicles and the identification/apprehension of motor vehicle violations. The student will become proficient in giving field sobriety tests for drinking drivers and the use of both the lidar and radar speed detection equipment

Theory 3 hours - Lab 2 hours

Prerequisites: Based on college placement test; must meet all requirements of the Ohio Peace Officers Training Academy

POA112 Self Defense 2 Credits

This course follows the curriculum of Ohio Police Officer Training Council's Basic Police Academy including self-defense techniques and the strait baton.

Theory 1 hour - Lab 2 hours

Prerequisites: Based on college placement test; must meet all requirements of the Ohio Peace Officers Training Academy

POA113 Criminal Law 3 Credits

This course is a survey of the Ohio Revised Code as it pertains to the laws of arrest/apprehension and special legal constraints in the Ohio Juvenile Justice System.

Theory 3 hours

Prerequisites: Based on college placement test; must meet all requirements of the Ohio Peace Officers Training Academy

POA114 Police Procedures 3 Credits

Knowledge and skills in police report writing, radio communications, prisoner booking and handling, and defensive and high speed driving are presented. The handling of civil disorders is included.

Theory 2 hours - Lab 2 hours

Prerequisites: Based on college placement test; must meet all requirements of the Ohio Peace Officers Training Academy

POA115 Community-Oriented Policing 3 Credits

This course presents the theory of the role of the American peace officer, philosophy and principles of the criminal justice system, ethics and professionalism, civil liability and use of force, crime prevention, gang awareness, cultural diversity, controlling violent and nonviolent crowds, communicating with the public and media. A special emphasis will be placed on victim's rights and community policing.

Theory 3 hours

Prerequisites: Based on college placement test; must meet all requirements of the Ohio Peace Officers Training Academy

POA116 Physical Training 1 Credit

This course follows the guidelines of the Ohio Peace Officer Training Academy physical fitness requirements. This is based on Cooper Standards for Age and Gender in the 50th percentile. Students will be required to meet this standard in their age and gender classification in three tests: situps, pushups, and one and a half mile run. The class will develop cardiovascular endurance along with upper body strength in order to pass OPOTA physical fitness standards.

Theory 1 hour

Prerequisites: Based on college placement test; must meet all requirements of the Ohio Peace Officers Training Academy

PHILOSOPHY

PHI101 Introduction to Philosophy 3 Credits

This introductory course will focus on several of the recurrent and central themes in the history of philosophy which have challenged our understanding of self and the universe. Special emphasis will be placed on the relevance these concerns hold for contemporary life.

Theory 3 hours

PHI201 History of Philosophy: Ancient through Modern 3 Credits

This course investigates the central themes of various philosophers from the Pre-Socratic period through the modern era. Topics include ethics, physics, religion, and metaphysics. Emphasis is placed on how ancient and medieval philosophy influences our modern understanding of the world, religion, science, and ourselves.

Theory 3 hours

Prerequisite: PHI101

PHI240 Special Topics in Philosophy 1-3 Credits

This course offers an examination of advanced topics in philosophy and religion selected by the dean and faculty that satisfy student needs and general studies/ social science requirements. This course provides the student an opportunity to explore topics in greater detail.

Theory 1-3 hours

Prerequisite: PHI101

PHYSICAL EDUCATION

PED101 Personal Fitness 1 Credit

An opportunity to discover the benefits and scientific reasons for lifelong participation in fitness-enhancing activities is presented. Individualized to meet the needs of each participant.

Lab 2 hours

PED102 Weight Lifting 1 Credit

Introduction is given to progressive resistive exercise for men and women. Topics include strength training, types of equipment, exercise techniques, competitive weight lifting, bodybuilding and injury prevention.

Lab 2 hours

PED103 Fitness Walking 1 Credit

This class provides students with information on the benefits of walking for fitness. Such topics as health advantages, appropriate conditioning, pace, warm-up, and cool-down will be covered, including practical experience in the skills needed to achieve success in developing and adhering to a walking program.

Lab 2 hours

PED110 Introduction to Golf 1 Credit

Fundamental skills of golf are taught, including grip, stance, swing patterns, and putting as well as rules of course play. Refinement of swing, use of various clubs and types of shots are reviewed.

Lab 2 hours

PED131 Personal Fitness II 1 Credit

This class is the follow-up to Personal Fitness I. It is a natural continuation of the personal fitness plan developed for individuals in Personal Fitness I. As students are required to take two physical education classes for most programs, it allows students to take two classes back to back with continuity in content and goal.

Lab 2 hours

Prerequisite: PED101

PED132 Total Body Conditioning I 1 Credit

This class provides an opportunity for students with limited capabilities to participate in a credit physical education class. It is also appropriate for older students who may not have the stamina to participate in more strenuous physical activity. The course also is appealing to a broad range of students who may not be skilled in specific sports activities or who may be intimidated by more aggressive physical activities.

Lab 2 hours

PHYSICS

PHY106 College Physics I 4 Credits

Subjects for this course include: mechanics - motion, force and motion - Newton's Law, work, energy, momentum, power, friction, circular motion and satellite mechanics, torque, power transmission, and rotational dynamics; mechanics properties of matter - the structure of matter, properties of solids, properties of liquids, and properties of gases; heat and thermodynamics - temperature and heat, heat and change of state, heat transfer, law of gases.

Theory 3 hours - Lab 2 hours

Prerequisite: MTH110

Corequisite: MTH111

PHY107 College Physics II 4 Credits

The topics included are electricity and magnetism - electrostatics, basic electric circuit, source and effect of electric current, magnetism and electromagnetism, electromagnetic induction, generator and motors; light and optics; wave motion and sound vibratory motion and waves, sound waves, acoustics; reflection and refraction, polarization, interference, and diffraction.

Theory 3 hours - Lab 2 hours

Prerequisites: MTH110, MTH111, or MTH120, MTH121

PHY126 Science/Engineering Physics I 4 Credits

A calculus-based course in the fundamental principles of mechanics for science majors and engineers, topics treated include vectors, equilibrium, kinematics and dynamics of a particle, energy, momentum, rotation, elasticity, simple harmonic motion and the behavior of fluids. Also includes temperature, thermal expansion, specific and latent heat, heat transfer, thermodynamics, kinetic theory, mechanical waves and sound with related laboratory and demonstrations.

Theory 3 hours - Lab 2 hours

Prerequisites: MTH220, high school physics and placement in ENG101

PHY127 Science/Engineering Physics II**4 Credits**

A continuation of PHY126, topics covered include Coulomb's law, electric fields and potentials, capacitors and dielectrics, current and resistance, dc circuits, magnetic fields and forces, electromagnetic induction, magnetic properties of matter, ac circuits, electromagnetic waves, light, mirrors, lenses, interference, diffraction, polarization, relativity, photons, structure of atoms, nuclei and solids with related laboratory and demonstrations.

Theory 3 hours - Lab 2 hours

Prerequisites: MTH220, PHY126

PHLEBOTOMY**PLB101 Phlebotomy****3 Credits**

The course focuses on the principles and techniques of blood collection by both venipuncture and capillary puncture, using various types of equipment. Professional ethics and liability, communication with patients and health care providers, composition and appearance of blood, safety, anticoagulants, and clinical relevance of laboratory tests are studied. Problems encountered in phlebotomy, in addition to special specimen collection and the nursery, are also reviewed.

Theory 2 hours - Lab 2 hours

Prerequisite: Meet minimum acceptable score ranges for English and reading placement test.

PLB102 Phlebotomy Practicum/Seminar**5 Credits**

The course is designed to be a continuation of PLB101 by providing 120 hours of applied phlebotomy experience in a CLIA regulated, accredited laboratory. Documentation of the minimum performance of 100 successful venipunctures (using vacuum tubes, butterflies or needles and syringes), 25 successful skin punctures and orientation in a full service laboratory is required for passing. Seminar component helps to prepare the graduate for national registry certification.

Practicum 120 hours - Seminar 1 hour

Pre-requisite(s): PLB101 or proficiency assessment exam approved by program director and completed health record

POLITICAL SCIENCE**PSC101 American Government****3 Credits**

This study of the nature and structure of American government includes an overview of federal, state, county, and municipal systems. Emphasis is placed on the structure of the U.S. Constitution, the functions of the three branches of government, and the major founding documents of the American system.

Theory 3 hours

PSC102 World Government**3 Credits**

This course studies and compares how governments in different nations function and the political patterns in those nations.

Theory 3 hours

PRACTICAL NURSING**PNR101 Introduction: Practical Nursing****2 Credits**

This course provides an introduction to the principles of practical nursing and the nursing process. The course begins to build from the simple to complex with special emphasis on the most commonly used nursing techniques, specifically those involved with safety, basic nursing therapeutic procedures, and medical math. Also included are the legal and ethical responsibilities of the practical nurse. Observation, discussion, study and practice are incorporated into the laboratory sessions.

Theory 1 hour - Lab 2 hours

Prerequisite: Admission to the School of Practical Nursing

PNR102 Practical Nursing Fundamentals**6 Credits**

This course, using both cognitive and behavioral activities, focuses on implementation of increasingly complex techniques within the framework of the nursing process. Emphasis is placed on those nursing activities which involve fundamentals of nursing; assessment and management of basic care concepts and skills; activity and comfort; documentation; and surgical care. To enhance the learning experience for the student, clinical laboratory experience in a long-term care center and/or an acute care hospital is correlated with classroom theory.

Theory 4 hours - Lab 4 hours - Clinical 5 hours

Lab fee includes liability coverage

Prerequisite: Minimum of "C" in BIO102, BIO103, ENG101, PNR101, PSY101

PNR103 Gerontological Nursing**3 Credits**

This course is designed to deal with all the aspects of natural aging and the increasing health needs of the individual older adult. To enhance the learning experience for the student, clinical laboratory experience in a long term care center and/or an acute care hospital is correlated with classroom theory.

Theory 2 hours - Clinical 5 hours

Prerequisite: Minimum of "C" in BIO102, BIO103, ENG101, PNR101, PSY101

Corequisites: PNR102, PNR104

PNR104 Medical/Surgical Nursing I**4 Credits**

This course is the introduction of basic scientific principles of the physiological responses to illness. Concepts of diseases and disorders of the body systems are presented including related chemotherapy and treatment. Principles and skills of drug administration are introduced in lab sessions. Clinical laboratory experience in a long-term care center and/or acute care hospital is correlated with classroom theory. Following completion of the lab practice session, supervised administration of medication is initiated in the clinical setting.

Theory 3 hours - Lab 1 hour - Clinical 5 Hours

Prerequisite: Minimum of "C" in BIO102, BIO103, ENG101, PNR101, PSY101

Corequisites: PNR102, PNR103

PNR105 Growth and Development**2 Credits**

The student practical nurse is assisted in developing a holistic approach to health care. Emphasis is placed on norms of growth and development across the life span; the family; and trends that affect the family as a unit. Physical, mental, cognitive, social and emotional aspects, and age specific play are included.

Theory 2 hours

Prerequisites: Minimum of "C" in BIO102, BIO103, ENG101, PNR101, PSY101; practical nursing majors only

PNR106 Medical/Surgical Nursing II 6 Credits

A continuation of PNR104, diseases and disorders that affect the remaining body systems are presented, including appropriate chemotherapy. Pharmacological principles and skills of drug administration are continued in the clinical laboratory under direct supervision. Select observational experiences will be provided as available.

Theory 5 hours - Clinical 12 hours

Materials fee includes graduate pin and cap

Prerequisite: Minimum of a "C" or "P" in PNR102, PNR103, PNR104, PNR105, and current AHA Health Care Provider CPR Certification

PNR107 Maternal/Child Health Nursing 7 Credits

This course assists the student to integrate the nursing process while providing family health care. Nursing concepts, principles and interventions are presented with regard to childbearing, the neonate and children through the growth years. It incorporates facets of disease prevention and health promotion and maintenance. To enhance the learning experience for the student, clinical lab experience in a family birth center and an acute care pediatrics department is correlated with classroom theory.

Theory 5 hours - Clinical 12 hours

Prerequisite: Minimum of a "C" or "P" in PNR102, PNR103, PNR104, PNR105, and current AHA Health Care Provider CPR Certification

PSYCHOLOGY**PSY101 General Psychology 3 Credits**

This introductory course in psychology covers the foundations of human consciousness, senses, learning, memory, thinking, intelligence, development, and psychological disorders/treatment. As a survey course specific emphasis is placed on a detailed presentation of many of the noted historical and contemporary figures who have shaped this field of study. In addition, students will be exposed to the experimental method and other research methods used by psychologists.

Theory 3 hours

PSY102 Psychology of Human Relations 3 Credits

In this course students will have the opportunity to explore several aspects of one's own personal and social functioning. The exploration is designed to aid individuals in better understanding themselves and their relationships with others. A focus on the practical applications of psychology are made throughout the course.

Theory 3 hours

PSY201 Child Development 3 Credits

This course focuses on an in-depth study of children's cognitive, social, emotional, and moral development. Both biological and psychological influences on behavior/personality development are examined. In addition, students will be exposed to both historical and contemporary researchers, their findings, and how these findings have practical significance. Those taking this course will be encouraged to critically evaluate the numerous competing theories that have arisen in this field as well as their practical applications, and will be challenged to develop their psychological vocabularies.

Theory 3 hours

PSY203 Social Psychology 3 Credits

This course studies human social interaction by exploring psychological understanding of such issues as aggression, group formation and dynamics, relationships, attitude formation and social influences. Emphasis will be placed on the student recognizing these principles in everyday life.

Theory 3 hours

Prerequisite: PSY101

PSY205 Human Growth and Development 3 Credits

This course is designed to familiarize students with the major historical and contemporary theories of human life-span development from birth through adulthood and their applications in educational and counseling settings. Emphasis is placed upon cultivating students' ability to relate theoretical materials to real-life experiences and observations. Course may require some hours of observation and report.

Theory 3 hours

Prerequisite: PSY101

PSY206 Adolescent Development 3 Credits

This course provides an in-depth study of the psychological development of adolescents. Both contemporary and historical theories/research will be presented and discussed that relate to the numerous developmental issues relevant to adolescence. An examination of the effects of puberty, modern culture, and the education system on development is also included. Students taking this course should not take PSY205 Human Growth and Development.

Theory 3 hours

Prerequisite: PSY101 (PSY201 recommended)

PSY207 Adult Development 3 Credits

This course provides a detailed study of the psychological changes that occur during the adult years. Both historic and contemporary theories will be presented and discussed that relate to the numerous developmental issues relevant to adulthood. An examination of the physical changes of adulthood and their effect on development is also included. Students taking this course should not take PSY205 Human Growth and Development.

Theory 3 hours

Prerequisite: PSY101

PSY211 Abnormal Psychology 3 Credits

This course will introduce students to the major mental disorders as classified by the American Psychiatric Association. Additionally, the etiology, assessment, and treatment of mental disorders will be presented from an integrated approach that comprises biological, social, and psychological influences. Moreover, students will be exposed to the DSM-IV-Test Revision classification system as well as advanced psychological terminology.

Theory 3 hours

Prerequisite: PSY101

PSY218 Personality Theories 3 Credits

A study of the nature of human personality by examining the works of the major theorists who have shaped the field. Emphasis will be placed on developing the student's ability to discern the major principles, approaches and assumptions that distinguish each theoretical perspective.

Theory 3 hours

Prerequisite: PSY101

PSY219 Characteristics of Exceptional Children 3 Credits

This course focuses on a study of childhood mental, emotional, and physical disorders and the relationship of these disorders to academic and social functioning. Also included is a study of gifted children and the unique challenges faced by this population. This course will also cover public policy issues as they relate to the successful adaptation of the child. Such topics as the provisions set forth in The Education For All Handicapped Children Act, I (i.e., IEP's and Mainstreaming) and other legislation relevant to the exceptional child will be presented. This course is designed for students enrolled in the Psychology, Education, and Child Development programs. Course requires 10 hours of observation and report.

Theory 3 hours

Prerequisite: PSY101

PSY220 Educational Psychology 3 Credits

This course emphasizes applications of psychology to developmental patterns of pupils, methods of evaluation and assessment, and teacher-student interaction. Students will review the major theories in the history of learning and learn how these theories apply to teaching and learning. Focus of the course will be on the processes by which information, skills, values, rules, and attitudes are transmitted from teachers to students and how the methods, measurement, procedures, and behaviors of teachers impact learners. A major issue will be diversity and differences among learners. Students will be given opportunities to engage in small group discussions as well as in experimental exercises designed to put into practice the ideas of major educational theorists. The student will learn about teaching and assessment in the real world through 10 hours of field experience.

Theory 3 hours

Prerequisite: PSY101

PSY240 Special Topics in Psychology 1-3 Credits

This course offers advanced psychology topics selected by the dean and faculty that satisfy student needs and general studies/social science requirements.

Theory 1-3 hours

Theory and/or hours assigned based on topics offered

RADIOLOGIC TECHNOLOGY**RAD101 Introduction: Radiography 1 Credit**

This introduction to the profession of radiologic technology includes history, basic radiation protection, production and control of X-ray beam, professionalism, medicolegal considerations, medical terminology and responsibilities of the radiographer.

Theory 1 hour

Materials fee includes liability coverage/film badge service

Prerequisite: Admission to Radiologic Technology Program

RAD102 Radiographic Procedures I 4 Credits

Emphasis is placed on basic radiographic procedures of the chest, abdomen, upper extremity including the shoulder girdle, lower extremity, hips, pelvis and spine. During laboratory sessions, educational experiences are planned to provide the student with opportunities to apply classroom theories.

Theory 3 hours - Lab 3 hours

Prerequisite: Admission to Radiologic Technology Program

RAD103 Clinical Education I 1 Credit

This course is designed to develop the student's basic competency in the manipulation of radiographic equipment and accessories. Selected and supervised clinical experiences are planned to reinforce learning and to provide clinical education opportunities to apply classroom theories. This course is blocked as eight-hour days beginning mid-semester.

Clinical 4 hours

Prerequisite: Admission to Radiologic Technology Program

RAD104 Methods of Patient Care 2 Credits

This course will provide the student radiographer with the basic concepts of patient care. Venipuncture technique, body mechanics, vital signs, asepsis, hospital emergencies, comfort measures, transporting, contrast media and pharmacology are included. This course includes observation, discussion, study and practice in laboratory sessions.

Theory 1 hour - Lab 2 hours

Prerequisite: Admission to Radiologic Technology Program

RAD105 Radiography I 4 Credits

Lecture and laboratory sessions focus on the primary factors of radiographic exposure and on proper utilization of accessory devices such as grids, intensifying screens and beam limiting devices. Emphasis is placed on overall image quality and technical factors affecting patient dosage and basic problem-solving techniques. This course concentrates on film construction, darkroom accessories and automated processor maintenance. During laboratory sessions educational experiences are planned to provide the student with opportunities to apply classroom theories.

Theory 3 hours - Lab 3 hours

Prerequisites: RAD101, RAD102, RAD103, RAD104

RAD106 Radiographic Procedures II 5 Credits

This course includes radiographic procedures of the bony thorax, cranium, facial skeleton and body system. Radiographic procedures performed in the operating room and positioning variations for trauma, pediatric, geriatric and atypical patients are studied. Special procedures equipment such as X-ray tubes and generators is presented as well as image intensification and various modes of image recording. Emphasis is on anatomy, patient positioning and use of contrast media for a variety of invasive techniques. Radiographic film evaluation is included.

Theory 4 hours - Lab 3 hours

Prerequisites: RAD101, RAD102, RAD103, RAD104

RAD107 Clinical Education II 2 Credits

Selected and supervised clinical experiences are planned to reinforce learning and to provide the student with clinical education opportunities in which to apply principles and techniques of radiographic procedures discussed in theory and lab.

Clinical 16 hours

Prerequisites: RAD101, RAD102, RAD103, RAD104

RAD108 Clinical Education III 2 Credits

Selected and supervised clinical experiences are planned to reinforce learning and provide the student with clinical education opportunities in which to apply principles and techniques of radiographic procedures discussed in theory and lab.

Clinical 16-40 hours (offered in summer)

Prerequisites: RAD105, RAD106, RAD107

RAD201 Radiography II 4 Credits

This course focuses on the more advanced principles of radiographic imaging such as specialized equipment, advanced problem-solving and the technical aspects of quality assurance. Concentrating on the principles of radiation protection, topics also include: principles of radiobiology, effects of radiation and health physics. During laboratory sessions, educational experiences are planned to provide the student with opportunities to apply classroom theories.

Theory 3 hours - Lab 3 hours

Lab fee includes liability coverage and film badge service

Prerequisites: RAD105, RAD108

RAD202 Radiologic Physics 3 Credits

General theories of physics including units of measurement; mechanics; structure of matter; electrostatics; magnetism; electrodynamics-electrical circuits; fundamentals of electromagnetism; and rectification are presented. The production and properties of X-ray, X-ray tubes, circuits and equipment are emphasized. Mathematical solutions of practical problems are included.

Theory 3 hours

Prerequisite: RAD108

RAD203 Clinical Education IV 4 Credits

Selected and supervised clinical experiences are planned to reinforce learning and provide the student with clinical education opportunities in which to apply principles and techniques of radiographic procedures discussed in theory and lab.

Clinical 24 hours

Prerequisite: RAD108

RAD204 Radiography III 3 Credits

This course is intended to acquaint the radiologic technology student with changes that occur through disease and injury and their application to radiologic technology. A general review of radiography also will be included.

Theory 3 hours

Prerequisites: RAD201, RAD202, RAD203

RAD205 Clinical Education V 4 Credits

This course will provide a continuation of clinical education including planned, supervised and evaluated clinical activity in a hospital-based internship in which the student will apply principles of radiographic procedures previously mastered in theory and lab.

Clinical 24 hours

Prerequisites: RAD201, RAD202, RAD203

RAD206 Clinical Education VI 1 Credit

This course will provide a continuation of clinical education including planned, supervised and evaluated clinical activity in a hospital-based internship in which the student will apply principles of radiographic procedures previously mastered in theory and lab.

Clinical 6 hours (Blocked 3 days a week for 5 weeks in summer - 24 hours per week)

Prerequisites: RAD204, RAD205

REAL ESTATE**REA201 Principles of Real Estate 3 Credits**

An introductory course is taught in accordance with guidelines set by the National and Ohio Associations of Realtors. Designed for professional real estate people, as well as the general public, the course covers elementary characteristics of real estate and various influences on real estate values. It also is a foundation for further study and preparation for securing a license.

Theory 3 hours

REA202 Real Estate Law 3 Credits

All the areas of law dealing with real estate are studied. Emphasis is on the law of agency as applied to real estate brokers and salesmen. Law of fixtures, estates, leases, conveying of real estate, real estate managers, license laws of Ohio, zoning, cooperatives and condominiums are included.

Theory 3 hours

REA211 Real Estate Finance 2 Credits

An examination of the nature of financing real estate is presented. Primary consideration is of an understanding of mortgage loans and the mortgage market. The effects of governmental monetary and fiscal policies also are considered.

Theory 2 hours

REA212 Real Estate Appraisal 2 Credits

Theory and principles of appraising urban real property using the three basic techniques of appraising are studied in depth. A project is assigned to give the student practical experience in applying these techniques.

Theory 2 hours

RESPIRATORY THERAPY TECHNOLOGY**RES101 Introduction: Respiratory Therapy 4 Credits**

An introduction is given to respiratory therapy as a profession and to basic clinical assessment and care of patients. Professional aspects relating to the duties, responsibilities, professional ethics and liabilities of respiratory therapy personnel will be discussed. Principles and skills of basic patient care including patient assessment, record keeping, airway management and patient monitoring will be included.

Theory 3 hours - Lab 3 hours

Lab fee includes liability coverage

Prerequisite: Admission to Respiratory Therapy Program

RES102 Basic Respiratory Therapeutics 4 Credits

Lecture and laboratory sessions are offered related to the administration of medical gases; devices used for the delivery of gases; and general respiratory therapy procedures, including IPPB, incentive spirometry, bronchopulmonary drainage and drug aerosol. Indications, hazards and contraindications will be included. The course also contains topics such as equipment processing, quality assurance and infection control.

Theory 3 hours - Lab 3 hours

Prerequisites: BIO105, RES101

RES103 Cardiopulmonary Pharmacology 2 Credits

The general principles of pharmacology including drug types; dispensing; dosage; effects, including contraindications; and regulations are presented in this course. Drug groups relating to respiratory therapy will be emphasized including bronchodilators, wetting agents, mucolytics, proteolytics, antibiotics and antiasthmatic drugs.

Theory 2 hours

Prerequisites: BIO105, RES101

- RES104 Clinical Application I** **2 Credits**
 An introduction to the clinical setting is provided with an opportunity to begin initial care for the patient. Basic oxygen therapy and airway maintenance therapy will be emphasized.
 Clinical practice 8 hours
 Prerequisite: RES101
- RES105 Cardiopulmonary Diagnostics/Rehabilitation** **2 Credits**
 A study of the methods available for determining lung function and capacity will be discussed. The topics include indications, equipment standards for testing, interpretation and methods for obtaining accurate results. Students will continue to study rehabilitative techniques and procedures for those patients who through testing were found to have pulmonary diseases. These methods will be presented as components of a rehabilitation program or home care.
 Theory 1 hour - Lab 2 hours
 Prerequisites: BIO105, RES102, RES103, RES104
- RES106 Clinical Application II** **1 Credit**
 In the clinical setting, the student will begin to perform general care therapeutic modalities using various techniques and equipment.
 Clinical practice 5 hours
 Prerequisites: BIO105, RES102, RES103, RES104
- RES201 Critical Care I** **4 Credits**
 The function and principles of operation of neonatal, pediatric and adult volume and pressure ventilators; high frequency ventilators; and continuous positive airway pressure devices will be reviewed. Concentration will be on specific controls, internal/external circuitry, monitoring systems and alarms.
 Theory 3 hours - Lab 3 hours
 Lab fee includes liability coverage
 Prerequisites: RES105, RES106
 Corequisite: RES203
- RES202 Cardiopulmonary Pathology** **2 Credits**
 This course will discuss the etiology, diagnosis and treatment of common pathologic processes which require respiratory care. Topics will include those pulmonary diseases, cardiac diseases, neurologic diseases, and traumatic injuries which require pulmonary treatment.
 Theory 2 hours
 Prerequisites: BIO105, RES105, RES106
- RES203 Clinical Application III** **4 Credits**
 Students will rotate in areas of the hospital to emphasize establishment and maintenance of artificial airways. An introduction to ventilator initiation and management in the critical care settings is included.
 Clinical practice 16 hours
 Prerequisites: RES105, RES106
- RES204 Critical Care II** **4 Credits**
 The theory and application of mechanical ventilation techniques with emphasis on physiologic effects for neonatal, pediatric and adult patients will be discussed. Patient initiation, evaluation, maintenance and weaning techniques will be incorporated. Hemodynamic monitoring and respiratory calculations will be practiced.
 Theory 3 hours - Lab 2 hours
 Prerequisites: RES201, RES202, RES203

- RES205 Respiratory Seminar** **1 Credit**
 This course reinforces the clinical education components of information gathering and decision-making related to assessment and treatment of cardiopulmonary impairment. Entry-level and advanced-level respiratory therapist comprehensive self-assessment testing will be administered.
 Theory 1 hour
 Prerequisites: RES201, RES202, RES203
- RES206 Clinical Application IV** **6 Credits**
 The final clinical component provides the opportunity to perform all procedures practiced throughout the clinical courses. Rotations in various critical care units, a neonatal intensive care unit, a pulmonary function laboratory and a home care company will be provided.
 Clinical 24 hours
 Prerequisites: RES201, RES202, RES203

RETAILING

- RET201 Principles of Retailing** **3 Credits**
 A general survey of the entire retailing sphere of operation, especially from the viewpoint of management, is provided. Areas covered are store location, layout, merchandise, sales, advertising, promotion, publicity and employees. Careers in retailing are also discussed.
 Theory 3 hours
- RET203 Salesmanship** **3 Credits**
 Basic principles of selling with emphasis on placing the principles into practice are presented. The course emphasizes the human relations aspect of selling. Beginning the sale, overcoming objections, making effective demonstrations and closing the sale are also covered as well as the internal and external factors of customer behavior and ethical considerations.
 Theory 3 hours
- RET205 Advertising and Promotions** **3 Credits**
 The purpose and benefits of advertising and its effects on human behavior are reviewed. Also scheduled is an examination of the types of media including: newspapers, television, direct mail, radio, magazines and outdoor. The legal and moral aspects of advertising also are presented as well as ethical considerations.
 Theory 3 hours
- RET243 Strategic Retail Management** **3 Credits**
 This course is a detailed study on developing a strategy for retail organizations in an environment of change. It is designed to increase skills in planning, organizing, staffing and retail operations. Topics used in developing a strategy are included such as consumer behavior, marketing research, trading area analysis, site selection, store image, service offerings, promotion and security prevention. Strategy for retail service businesses is introduced. Preparing a store floor plan-layout is required.
 Theory 3 hours
 Prerequisites: BUS201, RET201

SOCIOLOGY

SOC101 Introduction to Sociology 3 Credits

This course introduces students to the scientific study of human group behavior. In so doing, it addresses the methods of scientific research, the nature and functioning of culture and society, the impact of the social environment on individual behavior, and the interrelationships among social institutions such as family, education, religion, economics, and politics.

Theory 3 hours

SOC110 Sociology of Marriage and Family 3 Credits

This course will analyze the social institutions of marriage and family from the perspective of modern sociological theory. Emphasis will be placed on the history and nature of the American forms of these institutions, but cross-cultural comparisons also will constitute an important element of the course material.

Theory 3 hours

Prerequisite: SOC101

SOC202 Society and Institutions 3 Credits

An examination of significant contemporary problems in American society and their impact on the institutions of family, education, religion, economics, and politics is presented.

Theory 3 hours

Prerequisite: SOC101

SOC205 Social Problems 3 Credits

This course applies theories introduced in the Introduction to Sociology course to real-world social problems. The course focuses on issues surrounding race, gender, classes, crime, education, the family, drug and alcohol abuse, international conflict and others.

Theory 3 hours

Prerequisite: SOC101

SOC240 Special Topics in Sociology 1-3 Credits

This course offers advanced sociology topics selected by the dean and faculty that satisfy student needs and general studies/social science requirements.

Theory 1-3 hours

Theory and/or hours assigned based on topics offered

SPANISH

SPA101 Elementary Spanish I 4 Credits

This course is for students without high school Spanish or for those wishing to review basic grammatical concepts and vocabulary. It promotes the understanding, speaking, reading and writing of the Spanish language from the basics forward as well as the learning of the culture of the Hispanic world.

Theory 4 hours

SPA102 Elementary Spanish II 4 Credits

This course is a continuation of the understanding, speaking, reading and writing of the Spanish language from the basics forward as well as the learning of the culture of the Hispanic world.

Theory 4 hours

Prerequisite: SPA101

SPA201 Intermediate Spanish I 4 Credits

In this course the student will review material learned in Elementary Spanish and also learn to communicate in Spanish at a level beyond that taught in the first year. Learning at all levels of new language acquisition will take place: hearing, speaking, reading, and writing. The student will learn about the culture, history, and geography of Spanish-speaking countries around the world.

Theory 4 hours

Prerequisite: SPA101 and SPA102

SPA202 Intermediate Spanish II 4 Credits

This course will consist of reading, conversing, and writing in Spanish at a second year college level. The class will be conducted in Spanish. Attention will be given to culture, history, literature, geography, and music of the Spanish-speaking countries around the world. Emphasis will be placed on learning to use Spanish as a means of communication in the world of today.

Theory 4 hours

Prerequisite: SPA101, SPA102, SPA201

THEATRE

THE101 Introduction to the Theatre 3 Credits

To increase comprehension, appreciation, and critical interpretation of the theatre, students will study literary and production elements, historical figures and current innovators, as well as the development of the art form and its effect on society. Technical production projects, literary analysis, and play production critiques encourage exploration of individual interests in theatre arts.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

THE201 History of the Theatre 3 Credits

This course explores how theatre both mirrors and is influenced by the society and period in which it occurs. Students will examine pivotal plays throughout history and reflect on the culture that inspired them and the artists who crafted them.

Theory 3 hours

Prerequisite: ENG101 or demonstrated writing skills

THE240 Special Topics in Theatre 3 Credits

This course offers advanced classes on theatre topics selected for specific college programs or career areas. Possible special topics include History of the Theatre, Readers' Theatre, Children's Theatre, Creative Dramatics, and Fundamentals of Acting.

Theory 3 hours

Prerequisite: ENG101

STUDENT POLICIES

RESIDENCY REQUIREMENTS

Ohio Board of Regent's Rules (Rule 3333-1-10) Ohio Student Residency for State Subsidy and Tuition Surcharge Purposes

A. Intent and Authority

1. It is the intent of the Ohio Board of Regents in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the State of Ohio primarily for the purpose of receiving the benefit of a state-supported education.
2. This rule is adopted pursuant to Chapter 19 of the Revised Code and under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the Revised Code.

B. Definitions

For Purposes of this Rule:

1. A "resident of Ohio for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Revised Code, provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.
2. "Financial Support" as used in this rule shall not include grants, scholarships and awards from persons or entities which are not related to the recipient.
3. An "institution for higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college or private medical or dental college which receives a direct subsidy from the state of Ohio.

4. For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, "domicile" is a person's permanent place of abode; there must exist a demonstrated intent to live permanently in Ohio, and a legal ability under federal and state law to reside permanently in the state. For the purpose of this policy, only one domicile may be maintained at a given time.
5. For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, an individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the U.S.

C. Residency for Subsidy and Tuition Surcharge Purposes

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

1. A dependent student, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of each student in an institution of higher education.
2. A person who has been a resident of Ohio for the purpose of this rule for at least 12 consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving and has not directly or indirectly received in the preceding 12 consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
3. A dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in

the state of Ohio for reasons other than gaining the benefit of favorable tuition rates.

Documentation of full-time employment and domicile shall include both of the following documents:

- (a) A sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent or spouse of the student is employed full time in Ohio.
- (b) A copy of the lease under which the parent or spouse is the lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the parent or spouse is the owner and occupant; or if the parent or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent or spouse resides at that residence.

D. Additional criteria which may be considered in determining residency for the purpose may include but are not limited to the following:

1. Criteria evidencing residency:
 - (a) If person is subject to tax liability under Section 5747.02 of the Revised Code;
 - (b) If a person qualifies to vote in Ohio;
 - (c) If a person is eligible to receive state welfare benefits;
 - (d) If a person has an Ohio driver's license and/or car registration
2. Criteria evidencing lack of residency:
 - (a) If a person is a resident of or intends to be a resident of another state or nation for the purpose of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the

student qualified for that loan program by being a resident of that state or nation);

- (b) If a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits (see (D) (2) (a) of this rule).

E. Exceptions to the general rule of residency for subsidy and tuition surcharge purposes:

1. A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.
2. A person who enters and currently remains upon active duty status in the U.S. military service while a resident of Ohio for all other legal purposes that person and any dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
3. A person on active duty status in the U.S. military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these purposes.
4. A person who is transferred by an employer beyond the territorial limits of the 50 states of the U.S. and the District of Columbia while an Ohio resident for all other legal purposes and his/her dependents shall be considered Ohio residents for these purposes as long as Ohio remains the state of such person's domicile as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.
5. A person who has been employed as a migrant worker in the state of Ohio, his or her dependents shall be considered a resident for these purposes provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

F. Procedures

1. A dependent person classified as a resident of Ohio for these purposes and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
2. In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of 12 months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C) (1) or (C) (2) of this rule.
3. Any person once classified as a nonresident, upon the completion of 12 consecutive months of residency, must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding 12 consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident.

Evidentiary determinations under this rule shall be made by the institution which may require, among other things, the submission of documentation regarding the sources of a student's actual financial support.
4. Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.
5. Any institution of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his

or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

JEFFERSON COUNTY RESIDENCY REQUIREMENTS

Effective 1987, the following residency requirements must be met for a student to be eligible for in-district tuition rates:

1. As a general rule, a resident of Jefferson County shall mean any person who has maintained a 12-month place or places of residency in Jefferson County and who is qualified to vote as a resident of Jefferson County.
2. In order for a dependent student as defined by federal financial aid regulations to be eligible for the in-district tuition rate a parent or guardian of the student must have maintained a 12-month place or places of residency in Jefferson County and be qualified to vote as a resident of Jefferson County.

Exceptions to the general rule:

1. For purposes of determining Jefferson County residency the following will be considered exceptions to the "12-month residency rule;"
 - a. Active duty service in the U.S. military services;
 - b. Hospitalization at an "out-of-county" health care facility;
 - c. Enrollment on a full-time basis at an "out-of-county" higher education institution.
 - d. An independent student, the spouse of an independent student, or a dependent child of a parent or legal guardian, has accepted full-time, self-sustaining employment and established domicile in Jefferson County for reasons other than gaining favorable tuition rates.
 - e. Once-emancipated children returning to dependency upon parents who are Jefferson County residents will be considered Jefferson County residents.

- Students who are receiving federal financial aid will be considered residents of the county as coded by the financial aid office for the fiscal year in which the aid is received. Students applying to be considered for in-district residency status may be required to submit proof to support their application.

FAMILY EDUCATION RIGHTS AND PRIVACY ACT OF 1974

Students will be notified of their FERPA rights annually by publication in the student handbook.

Directory Information

Jefferson Community College has classified the following information as "directory information": name, address, telephone number, e-mail, dates of attendance, enrollment status, degrees and awards received, and honors. If a student does not wish this information to be released to anyone, the student must file a non-disclosure form with the Student Information Center.

Procedure to Inspect Education Records

Students may inspect and review their education records upon request to the appropriate record custodian.

Students should submit to the record custodian or an appropriate college staff person a written request which identifies as precisely as possible the record or records he or she wishes to inspect.

The record custodian or an appropriate college staff person will make the needed arrangements for access as promptly as possible and notify the student of the time and place where the records may be inspected. Access must be given in 45 days or less from the receipt of the request.

When a record contains information about more than one student, the student may inspect and review only the records which relate to him.

Right of College to Refuse Access

The college reserves the right to refuse to permit a student to inspect the following records:

- The financial statement of the student's parents.
- Letters and statements of recommendation for which the student has waived his or her right of access, or which were placed in file before January 1, 1975.
- Records connected with an application to attend the college if that application was denied.
- Those records which are excluded from the FERPA definition of education records.

Refusal to Provide Copies

The college reserves the right to deny transcripts or copies of records not required to be made available by the FERPA in any of the following situations:

- The student lives within commuting distance of the college.

- The student has an unpaid financial obligation to the college.
- There is an unresolved disciplinary action against the student.

Fees for Copies of Records

The fee for copies will be \$1 per page.

Disclosure of Education Records

The college will disclose information from a student's education records only with the written consent of the student, *except*:

- To school officials who have a legitimate educational interest in the records.

A school official is:

- a person employed by the college in an administrative, supervisory, academic or research, or support staff position.
- a person serving on the Board of Trustees.
- a person employed by or under contract to the college to perform a special task, such as the attorney or auditor.

A school official has a legitimate educational interest if the official is:

- performing a task that is specified in his or her position description or by a contract agreement.
- performing a task related to a student's education.
- performing a task related to the discipline of a student.
- providing a service or benefit relating to the student or student's family, such as health care, counseling, job placement, or financial aid.

- To officials of another school, upon request, in which a student seeks or intends to enroll. (NOTE: FERPA requires a college or university to make a reasonable attempt to notify the student of the transfer unless it states in its policy that it intends to forward records on request.)
- To certain officials of the U.S. Department of Education, the Comptroller General, and state and local education authorities, in connection with certain state or federally supported education programs.

Types, Locations and Custodians of Education Records

Types	Location	Custodian
Admissions Records	Admissions Office (if student did not attend)	Director of Admissions
Admissions Records	Registrar's Office (if student did enroll)	Registrar
Cumulative Academic Records	Registrar's Office (if student did enroll)	Registrar
Health Records	Dean of Enrollment Management Office	Dean of Enrollment Management
Financial Records	Business Office	Vice President for Business Services
Financial Aid Records	Financial Aid Office	Director of Student Information
Placement Records	Placement & Alumni Office	Director of Career Planning, Placement, and Alumni
Disciplinary Records	Student Affairs Office	Executive Vice President for Academic & Student Affairs
Occasional Records (Student education records not included in the types listed above such as minutes of faculty committee meetings, copies of correspondence in offices not listed, etc.)	The appropriate official will collect such records, direct the student to their location, or otherwise make them available for inspection and review	The college staff person who maintains such occasional systems records

4. In connection with a student's request for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid.
 5. If required by a state law requiring disclosure that was adopted before November 19, 1974.
 6. To organizations conducting certain studies for or on behalf of the college.
 7. To accrediting organizations to carry out their functions.
 8. To parents of an eligible student who claim the student as a dependent for income tax purposes.
 9. To comply with a judicial order or a lawfully issued subpoena.
 10. To appropriate parties in a health or safety emergency.
 11. Directory information.
 12. To the student.
 13. Results of a disciplinary hearing.
 14. Results of a disciplinary hearing to an alleged victim of a crime of violence
 15. Final results of a disciplinary hearing concerning a student who is an alleged perpetrator of a crime of violence and who is found to have committed a violation of the institution's rules or policies.
 16. Disclosure to a parent of a student under 21 if the institution determines that the student has committed a violation of its drug or alcohol rules or policies (regardless of student's dependent status).
1. A student must ask (appropriate official of) the college to amend a record. In so doing, the student should identify the part of the record he or she wants changed and specify why he or she believes it is inaccurate, misleading, or in violation of his or her privacy or other rights.
 2. The college may comply with the request or it may decide not to comply. If it decides not to comply, the college will notify the student of the decision and advise him/her of his/her right to a hearing to challenge the information believed to be inaccurate, misleading, or in violation of the student's rights.
 3. Upon request, the college will arrange for a hearing and notify the student, reasonably in advance, of the date, place and time of the hearing.
 4. The hearing will be conducted by a hearing officer who is a disinterested party; however, the hearing officer may be an official of the institution. The student shall be afforded a full and fair opportunity to present evidence relevant to the issues raised in the original request to amend the student's education records. The student may be assisted by one or more individuals, including an attorney.
 5. The college will prepare a written decision based solely on the evidence presented at the hearing. The decision will include a summary of the evidence presented and the reasons for the decision.
 6. If the college decides that the challenged information is not inaccurate, misleading, or in violation of the student's right of privacy, it will notify the student that he or she has a right to place in the record a statement commenting on the challenged information and/or a statement setting forth reasons for disagreeing with the decision.
 7. The statement will be maintained as part of the student's education records as long as the contested portion is maintained. If a state college discloses the contested portion of the record, it must also disclose the statement.
 8. If the college decides that the information is inaccurate, misleading, or in violation of the student's right of privacy, it will amend the record and notify the student, in writing, that the record has been amended.

Record of Requests for Disclosure

The college will maintain a record of all requests for and/or disclosure of information from a student's education records. The record will indicate the name of the party making the request, any additional party to whom it may be redisclosed, and the legitimate interest the party had in requesting or obtaining the information. The record may be reviewed by the parents or eligible student.

Correction of Education Records

Students have the right to ask to have records corrected that they believe are inaccurate, misleading, or in violation of their privacy rights. Following are the procedures for the correction of records:

Right to File

The student has the right to file a complaint with the U.S. Department of Education concerning alleged failures by JCC to comply with the requirements of FERPA. The name and address of the office that administers FERPA is

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue S.W.
Washington D.C. 20202-4605

FINANCIAL DISCLOSURE

Financial statements consisting of a balance sheet, a statement of current fund revenues, expenditures and other changes, and a statement of changes in fund balances are available on an annual basis from the Business Office. The balance sheet is published annually in the *Herald Star*. Additional financial information is prepared on a periodic basis. A request for financial information is to be made to the vice president for business services/treasurer. The college will make financial information available within a reasonable period of time.

POLICY REGARDING ALCOHOL/ ILLCIT DRUG USE

Mission

Among its background statements, Jefferson Community College provides "opportunities for the student to develop increased personal and social responsibility as well as the knowledge, self-assurance and self-direction required to achieve personal satisfaction and approach self-actualization in life." In this context, the college believes students should be provided the education necessary to make responsible decisions regarding their own use of alcohol and the place alcohol and drug use has in the work place and in society.

Goals

To carry out this mission, the college has established the following goals with respect to alcohol and illicit drug use:

1. To provide an environment at the college that promotes responsible decision-making on the part of the students regarding alcohol and illicit drug use.

2. To provide the academic and support services students need in order to make responsible decisions regarding the use of alcohol and illicit drugs.
 3. To provide an environment which reinforces the federal, state and local laws regarding the use of illicit drugs.
 4. To provide to students who are experiencing difficulty in the responsible use of alcohol/drugs appropriate crisis intervention, counseling and referral to designated local agencies for treatment.
 5. To provide students with the opportunity to influence the development of, and participate in, the Jefferson Community College Alcohol and Illicit Drug Use Policy and educational program.
- C. Forbids the unauthorized possession or use of alcohol and/or illicit drugs on campus by others (i.e. those who are not covered by the student and employee policies of the college). Such persons when discovered will be ordered to immediately leave campus and/or be reported to local law enforcement officials.
 - D. Forbids alcohol to be purchased, sold, or used on campus during any student function.
 - E. Encourages all persons on the campus to abide by the local and state laws pertaining to alcohol and drug use and will fully cooperate with law enforcement agencies to ensure these laws are enforced.
2. Education and Instruction

In order for students to make responsible decisions regarding the use of alcohol and to be cognizant of the health dangers and legal ramifications of drug abuse, students need appropriate and accurate information. To make this available to them, the college provides the following information:

1. Environment
- The college believes that quality education can best be achieved in an environment that is conducive to academic pursuits. The college also believes that alcohol and drug abuse are detrimental to the maintenance of such an environment. Jefferson Community College therefore:
- A. Forbids the unauthorized possession or use of alcohol or illicit drugs by students on campus, at intern stations, or at practicum sites. Violations should be reported to college staff, who will refer the information to the executive vice president for academic and student affairs for investigation and appropriate actions. Violations will result in imposition of penalties up to and including the immediate suspension or dismissal of the student from the college and possible referral to local law enforcement agencies for prosecution.
 - B. Imposes, at its discretion and determined on a case-by-case basis, penalties less severe than suspension, expulsion, and/or referral for prosecution dependent upon the circumstances. Some of these penalties include, but are not limited to, written warnings, probation, partial suspension and mandatory participation in a treatment program.
- C. Selected classes such as psychology, sociology, etc. will include exposure to appropriate information regarding alcohol and illicit drug use as part of their objectives.
 - D. The college library contains books, periodicals and other printed material which students are encouraged to consult for information about alcohol and illicit drug use, alcoholism and addiction, health risks associated with alcohol or drug use, and legal sanctions for violations of laws regarding alcohol and drug use.
3. Policy Review
- In order that the Alcohol and Illicit Drug Use Policy is reviewed and revised to ensure that it continues to address institutional needs, the following procedures will be implemented:
- A. All incidents in which the policy has been applied will be documented in a

file to be maintained in the office of the executive vice president for academic and student affairs.

- B. During summer, on an annual basis, the policy, any cases where the policy has been applied, and any other information or occurrences related to the policy will be reviewed by the president's cabinet. Desired changes based upon this review which will make the policy more effective in accomplishing its purpose will be made and communicated to the college community.
4. College policies regarding alcohol and illicit drug use by college employees are contained in a separate statement found in the employee handbooks and the personnel policy manual. Individuals who are also college student employees are subject to applicable policies and penalties contained in the employee policy statement as well as the student and general policy outlined above.

CONTROL OF INFECTIOUS DISEASES

Purpose:

As an institution which is committed to nondiscrimination in the provision of educational services and in employment, the college must develop policies which ensure the rights of the individual and at the same time take necessary precautions to safeguard the health of all students and employees.

The following general procedures are implemented to reduce the risk of contagion of infectious diseases and, at the same time, to the degree possible, make educational and employment opportunities available to persons contracting infectious diseases. Specific divisions and departments of the college should develop specific procedures based on this general policy. The term student for the purposes of this policy includes credit students, noncredit students and children enrolled in the preschool.

1. It is the responsibility of all students and employees to comply with federal, state and local law regarding the reporting of infectious diseases which an individual has acquired or to which they have been exposed. The county and city health departments or a family physician can provide information regarding this matter.

2. Students or employees who have an infectious disease including Acquired Immune Deficiency Syndrome (AIDS), Aids Related Complex (ARC), or a positive HIV (Human Immunodeficiency Virus) antibody test will be allowed on campus for classroom attendance or for employment as long as they are physically able to satisfy course requirements or job duties/responsibilities and do not constitute a reasonable threat to the health of other students and employees. The college reserves the right to limit student/employee participation in laboratory work or in clinical or practicum assignments. The decision regarding whether an individual's particular disease constitutes a threat to students and/or employees or if limits will be placed on the student's/employee's participation in classroom instruction, laboratory work, or clinical or practicum assignments will be made by the college president on a case-by-case basis. Students and/or college employees who have infectious diseases may be required to comply with health sanitation and safety procedures not required of all students or employees as a condition of continued attendance or employment.
3. All decisions regarding the continued enrollment or employment of an individual with an infectious disease and/or conditions placed on the continued enrollment or employment will be based on the most recent information and recommendations issued by the National Centers for Disease Control, the Ohio Department of Health, or the Jefferson County Department of Health. In addition, the college administration may confer with the student's/employee's private physician for information that may be pertinent to the decision.
4. All information concerning people with an infectious disease including AIDS, ARC, or a positive HIV antibody will be considered as confidential information. Any employee or student who has reason to believe that the presence of a student on campus constitutes a serious potential threat to students and employees should bring this matter to the attention of the executive vice president for academic and student affairs. Any employee or student who has reason to believe that the presence of an employee on campus constitutes a serious potential threat to students and employees should bring this matter to the attention of the vice president for administrative services. The appropriate vice president will inform the president of such notification. The president may share the information with other appropriate college personnel.
5. The college will provide education through referral to the local health department for students and employees with known infectious diseases to assist them in participating in programs and college life in a way which would maintain safety and safeguard health. Persons with an infectious illness including AIDS, ARC, or a positive HIV antibody test will be expected to comply with precautions which are based on current knowledge or real or potential modes of transmission.
6. During the prevalence of contagious diseases (such as measles or chicken pox) on campus, the college will attempt, through referral to the local health department, to counsel immunologically compromised individuals regarding special precautions.
7. Students and employees exposed to blood, body fluids, or items which are in direct contact with body fluids or waste will be instructed in current infection control techniques by the appropriate supervisor or faculty member.
8. College employees responsible for educating students and employees will periodically confer with the local health department to ensure practices are current.
9. Records regarding students with or exposure to infectious diseases will be retained in the Academic and Student Affairs Division. Records regarding employees with or exposed to infectious diseases will be retained in the Administrative Services Division.
10. Special precautions need to be taken by those infected and by students and employees in handling blood, body fluids, or items which are in direct contact with body fluids or body wastes. Each division or department which routinely contacts blood, body fluids, or items which are in direct contact with body fluids or body wastes must develop a specific policy on this matter for that area. The policy developed should include the following considerations:
 - A. Blood, other body fluids, or items which are in direct contact with body fluids or body wastes from any person may harbor a number of organisms that are potentially infectious to others. It is prudent to treat blood, body fluids, or items which are in direct contact with body fluids or body wastes with caution regardless of the apparent health of the person.
 - B. In handling blood, body fluids, or items which are in direct contact with body fluids or body wastes and to ensure proper cleaning and disinfection, it is recommended that: Surfaces soiled with blood, urine, feces, vomitus, etc. should be thoroughly washed with soap and water, then disinfected with a 10 percent solution of household bleach and water (one part bleach to nine parts water). This solution should be freshly prepared for each use.
 - C. Personnel cleaning the spill should wear gloves and wash hands thoroughly when finished.
 - D. Disposable towels should be used whenever possible.
 - E. Plastic waste bags should be used whenever possible so that materials are not handled prior to disposal. Plastic liners should be removed and replaced with new liners each time the waste containers are emptied.
 - F. Mops should be thoroughly rinsed in the disinfectant solution.
 - G. For injuries that result in bleeding, nosebleeds, menstrual accidents, etc., the person assisting should wear gloves whenever possible. Direct contact is potentially infectious, especially when there are breaks in the skin, as in chapping or eczema. Proper handwashing (soap and running water for 15 seconds) significantly reduces the risk of infection from contact with all potentially infectious body fluids.

DISRUPTIVE STUDENTS

It is the policy of Jefferson Community College that it will not permit disruptive behavior of a student to interfere with the educational efforts of others. Behavior that interferes with effective instruction or that interferes with the maintenance of an orderly and academically focused learning environment will not be tolerated.

These steps are recommended for addressing a disruptive student:

1. Advise the student individually and the class generally regarding what behaviors are considered disruptive. It may be advisable to outline expected behaviors as part of the course orientation at the first class session.
2. A student should be warned immediately when he/she engages in disruptive behavior. Once a student has been warned, repeated infractions should be brought to the attention of the dean.
3. If a student refuses to cooperate, becomes confrontational, or the behavior is so disruptive that it cannot be tolerated, immediately summon the college's security guard who will handle removing the student from class.
4. Once a case of misconduct has been reported to the dean and/or security, it will be investigated. As with any disciplinary matter, a student will be afforded due process rights.
5. Student misbehavior outside of the classroom also need not be overlooked or ignored by any college employee. Behaviors such as profanity use, vandalism, horseplay and loud talking in the hallways, etc. are not acceptable. An employee should not hesitate to advise a student of inappropriate behavior or report it to security, a dean or one of the vice presidents.

All students are expected to conduct themselves according to commonly accepted standards of academic and social courtesy. Therefore, as long as the college has communicated in advance its standards, consistently and fairly applies them, and follows due process in discipline matters, a disruptive student can be removed, temporarily or permanently, from courses and from the college in general.

CAMPUS SECURITY

The federal government, through public law 102-26, requires all recipients of federal Title III aid to formulate and publish policies and statistics regarding campus security. The following is in compliance with the final regulations of this act, effective July 1, 1997, and amended in 1998.

1. All incidents of theft, vandalism, other criminal activity, or accidents should be reported immediately by the victim or those witnessing said incident to the vice president for administrative services, security guard on duty, information-visitor counter receptionist, or evening coordinator. Complete details of the incident should be provided. Procedures for reporting fires or tornadoes are outlined in the following sections of this catalog. As appropriate, the college will summon police, fire, or ambulance personnel to campus to assist in responding to incidents reported. In cases of criminal activity, the victim of such occurrences will be encouraged to file a report/charges with the local police department. The college also may elect to file a report/charges regarding any infraction of law occurring on campus.
2. The college has declared no part of its campus or grounds a public place. The only persons permitted on college property are those with legitimate need to be on campus related to the mission and goals of the college such as taking part in classes or activities sponsored by the college, attending activities sponsored by outside organizations approved through the college's outside building use policy, visitors touring the college as part of the admissions process, vendors doing business with the college and similar purposes. No one other than employees are generally permitted on campus after 10 p.m. The college reserves the right to question individuals on college property regarding their identity and reason for being at the college and request or order the individual(s) to leave college property if the reason for being on campus is not directly or indirectly related to the college's mission and goals as defined in this catalog as interpreted by the college administration. As appropriate, the

college will utilize the resources of local law enforcement agencies in maintaining a safe and secure campus environment.

3. The college employs a security staff to enforce college policies dealing with safety and security issues. These employees do not have police powers and, as appropriate, summon the local police. The college encourages the reporting of any criminal activity occurring on campus to the security staff and/or local police. The college cooperates fully with any police investigations and will bring charges against perpetrators as appropriate. In addition to or separate from any civil penalties which criminal activity may engender, the college can impose campus-based penalties including but not limited to fines, probation, suspension, or expulsion from the college according to the procedures outlined in the Student Regulations Committee section of this catalog.
4. All Jefferson Community College students are expected to abide by local, state and federal laws whether on campus or at an off-campus activity, clinical, etc. conducted by the college or in association with the college. The same reporting procedures, referral to local police agencies and campus-based penalties which would apply to on-campus criminal activity will apply to off-campus incidents occurring at college-sponsored activities as appropriate.
5. The college will not tolerate the illegal use of alcohol or drugs on campus or at off-campus activities. College policies and procedures regarding the use of alcohol and drugs are contained in the Policy Regarding Alcohol/Illicit Drug Use contained in this catalog.
6. Jefferson Community College has been designated a tobacco free facility. The use of any type of tobacco inside the facility is strictly prohibited. All use of tobacco is restricted to outside of the building.
7. All institutions which receive federal aid, including those which distribute federal aid to students, i.e. Pell Grants, Guaranteed Student Loans, Work-Study, etc. are required, effective 9/1/92, to inform students regarding the occurrence of certain crimes on campus. The following information total for 2002-2004 calendar years is provided

to meet this federal requirement.

No. of Occurrences on Campus

	2002	2003	2004
Type of Crime			
Murder	0	0	0
Rape/sexual offenses--forcible			
or non-forcible	0	0	0
Robbery	0	0	0
Aggravated Assault	0	0	0
Burglary (lockers, missing			
books, etc.)	1	3	3
Motor Vehicle Theft	0	0	0
Weapon Law			
Violation	0	0	0
Liquor Law			
Violations	0	0	0
Drug Abuse			
Violations	0	0	0

The preceding information is based upon information reported to campus authorities or local police agencies and is defined according to the Uniform Crime Reporting System of the Department of Justice, Federal Bureau of Investigation and the modifications in such definition as implemented pursuant to the Hate Crime Statistics Act.

- The college will not tolerate sexual offenses committed on campus or any off-campus, college-sponsored activity. Victims of such offenses should preserve evidence for the proof of a criminal offense and report the offense to the local police who will have jurisdiction in the matter and to the director of campus security who will assist the victim in contacting the police if requested. To assist a student in avoiding being the victim of such offenses, the college makes available, periodically, commercially produce pamphlets regarding the subject. These are free and available in the self-help brochure rack located in the record/financial aid office complex. Referral to local sexual offense prevention and victim support services is available through the college's counseling staff.

Persons found guilty of sexual offense may be subject to campus-based penalties in addition to or separate from civil penalties which may occur including but not limited to: fines, probation, suspension, or expulsion from the college. In cases where the college is considering campus-based penalties: The accused and accuser will have the same opportunity to have others present during the

proceedings, and both will be informed of any outcomes of the proceedings; in addition to other rights and procedures for such proceeding contained in the student regulations section of this catalog. Upon request from an alleged victim of a sexual offense, the college will attempt to change a victim's academic situation if this is directly related to the alleged offense, and other accommodations are reasonably available.

- Any questions or comments regarding the college's policies and procedures related to campus crime and security should be directed to the vice president for administrative services, executive vice president for academic and student affairs, or college president.

EMERGENCY ALARMS AND BUILDING EVACUATION

For the safety of all persons using the college's facilities, emergency alarm and building evacuation procedures are detailed below. All students should read and become familiar with these procedures.

Reporting Fire or Other Emergencies and Building Evacuation Procedures

- Any person seeing a fire or heavy smoke during day hours should pull the closest fire alarm box located throughout the building. The person should then seek the closest Jefferson Community College employee to report his/her name and the location of the fire. Any other emergency where the safety of persons in the building is in immediate jeopardy also should be handled in the manner above.
- If no fire or heavy smoke is observed but smoke is smelled or seen, the person noticing the smoke should not pull the alarm box. The person should inform the closest Jefferson Community College employee of the situation. Any other emergency which may require the evacuation of the building should be reported in this manner. If there is any doubt regarding the potential seriousness of the emergency, the procedures outlined in No. 1 should be followed.
- The bell chime/flashing lights are the

signal that the building is to be evacuated because of fire or other emergency.

- When this signal is heard or seen all students, college employees and visitors should proceed in an orderly manner to the closest exit. All outside exits are marked with a sign over the door. Each classroom has a sign with the closest exit identified. In addition, a map and detailed evacuation instructions are posted in each classroom. All doors should be left open during building evacuation.
- Once outside, persons evacuating the building should congregate in the closest parking lot or basketball court area staying at least 300 feet from the building. Evacuation of the building does not mean automatic cancellation of class. Students and staff should remain in the parking lot area until a college official (president, vice president, department dean or security director) informs them to leave the grounds. Likewise, no person should re-enter the building until advised to do so by one of these officials.
- During evening hours of operation, the emergency notification and evacuation plan will be that outlined above. The evening coordinator will coordinate the alarm and evacuation procedures.

Tornado Alert Procedure

- Any person hearing a radio or television announcement of a tornado watch should report this information either directly or through a college employee to the switchboard operator.
- Any person either hearing an announcement of a tornado warning for the immediate vicinity of the college or sighting a tornado should report this information either directly or through a college employee to the switchboard operator.
- The security coordinator will sound an air horn which signals the imminent approach of a tornado. Upon hearing this sound, students and staff should proceed in an orderly manner according to this plan:

Warning is three short blasts on a hand-held air horn, a 15-second delay followed by three short blasts again.

This alert will last for three minutes. Do not panic or run but proceed to the closest emergency shelter area listed below.

2nd Floor Rooms 2500-2527 will go to ground floor interior hallway, both sides of hallway; stay clear of doors and glass

Ground Floor Rooms 1500-1546 will go to the ground floor interior hallway, both sides of hallway; stay clear of doors and glass

2nd Floor Rooms 2200-2217 will go to the ground floor interior hallway, both sides of hallway; stay clear of doors and glass

Ground Floor Rooms 1201-1217 will go to the ground floor interior hallway, both sides of hallway; stay clear of doors and glass

Rooms 2600-2631 Go to maintenance area garage, loading dock area; stay clear of doors or glass

Rooms 2000-2102 Ground floor north wing interior hallways; stay clear of doors and glass

Notification to disperse will be one long blast, a 15-second delay, one long blast, 15-second delay. This will continue for one minute.

- During evening hours information about the approach of a tornado will be delivered to the evening coordinator who will instruct the security staff to sound the alarm. The shelter locations will remain the same. During weekend hours the security guard should verbally instruct persons in the building regarding the location of the closest shelter area.

Fire and Tornado Information

Distribution and Alarm Test Procedures

- At least one time each semester the college will sound the evacuation and tornado alarms so that the students and employees are familiar with each signal. The alarm signal will be sounded each day of the week at an announced time during the day and evening hours. The dates and times for the sounding of alarms will be published in **Newsbreak**. Students will not leave class or the building during the test procedure. Students or employees who cannot hear the alarm(s) should report this fact and the location to the security staff or

executive vice president for academic and student affairs.

- Any time either alarm system sounds other than announced system tests times and dates all students, visitors and employees will implement the evacuation or tornado procedures. In case of any doubt when the alarm sounds, it should be assumed that the situation is not a test but a real emergency.

POLICY ON FOOD & BEVERAGE CONSUMPTION ON CAMPUS

Consumption of food and beverages in classrooms, labs and lecture halls can be unsanitary, distracting to fellow students and instructors, and unsafe (particularly where chemicals are present); therefore the following policy is in place.

Policy

- Consumption of food or beverages will not be permitted in the Jefferson Community College building in any classroom, lecture hall, labs, library and computer complex. Food and beverages may be consumed in lounge, outside the lecture halls and other hallway areas.
- Exceptions to this policy may be approved for special events such as class parties. Approval of the appropriate department head must be received prior to the event.
 - If a special event is scheduled, all cans, food, paper and other residue from this event must be disposed of in the proper manner.
- As responsible members of the college community, it is the responsibility of all students and employees to voluntarily comply with the enforcement of this policy. Violations of this policy should be courteously called to the attention of the violator by any member of the campus community observing the violation. Faculty members should inform students of the policy at the beginning of each term and not allow students to bring food or beverages into classrooms and other restricted areas. Repeated violation should be brought to the attention of the executive vice president for academic and student affairs or other

appropriate division administrator, who will take appropriate action on a case-by-case basis to resolve the matter.

ON-CAMPUS POSTING AND DISTRIBUTION OF MATERIAL

The college's building and grounds are designated for use in achieving the goals of the institution. Use of the facilities is limited to those activities which support these goals and the continued ability of the college to provide general and technical education. No part of the college campus has been designated as a public place available for general use not related to the college's purposes.

The following written procedures are established to ensure that on-campus posting and distribution of material can be effectively administered and is consistent with the college's goals.

Procedures:

- In order to identify accurately all bulletin boards located in the hallways or lounges, each board will be numbered; the number will be posted on the board.
- All bulletin boards will be designated for specific uses. Use of each board will be restricted to the use designated. Material posted on the boards which is not consistent with the designated use will be removed. The executive vice president for academic and student affairs periodically will publish a list of the designated use for each board. This policy statement does not cover bulletin boards located in offices or classrooms.
- All material posted on college bulletin boards (except material posted on bulletin boards designated for use by a particular major or technology) must be stamped to show approval for use by the executive vice president for academic and student affairs. Material posted on departmental or major bulletin boards must be approved by the appropriate administrator or staff member. Material not approved for posting will be removed.
- Only material submitted by a student or full- or part-time college employee will be considered for approval for posting. The college bulletin boards are not available to nonstudents and non-employees.

5. Campus distribution of any materials by nonstudents or non-employees is not permitted.

6. No materials, announcements, signs, etc. may be posted on walls, windows, on the college grounds, or in any other places except the college bulletin boards.

7. The showcases located throughout the building are designated for classroom-related and student activities use. The executive vice president for academic and student affairs coordinates the use of the showcases.

8. The college reserves the right to deny the use of its bulletin boards, campus, or grounds to any individual or group if such use is judged by the college administration to be detrimental to the well-being of the college.

STUDENT RESPONSIBILITY FOR HEALTH CARE INSURANCE

The college does not provide health care insurance for students. Students are strongly encouraged to acquire appropriate health care coverage since the college is not responsible for health care costs that may result from illness or accidents that occur on or off campus, or as a result of participation in student activities, seminars, practicum/clinical sites or other work sites. Should a student want to acquire health care insurance, information about student plans is available through the academic and student affairs office. Specific college programs may require proof of health insurance coverage as a requirement of participation in that program.

ADMISSIONS POLICY FOR THOSE COMPLETING HOMESCHOOLING

The college will accept and process applications of homeschool graduates under the same guidelines as used for high school graduates and people who have attained a General Education Diploma, as long as the homeschool graduates meet the prerequisites detailed in the policy maintained by the Division of Academic and Student Affairs.

CONDITIONAL ACCEPTANCE OF EXCEPTIONALLY QUALIFIED STUDENTS UNDER 16

Under very extraordinary circumstances, students under the age of 16 may be considered for admission to attend selected credit courses at JCC if the applicant meets the conditions detailed in the policy maintained by the Division of Academic and Student Affairs.

SEXUAL HARASSMENT POLICY

The Jefferson Community College administration, faculty, staff, student employees, students, and volunteers are responsible for assuring that the college maintains an environment for work and study free from sexual harassment. Sexual harassment is unlawful and impedes the realization of the college's mission of excellence in education, scholarship, and service. The college community seeks to eliminate sexual harassment through education and by encouraging faculty, staff, student employees, students, and volunteers to promptly report concerns or complaints.

1. Definition of Sexual Harassment

Sexual harassment includes, but is not limited to, unwelcome or unwanted sexual advances, requests for sexual favors, and other verbal, visual or physical conduct of a sexual nature when any one of the following criteria is met:

A. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or academic status;

B. Submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting such individual; or

C. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive environment for working, or learning on campus.

Sexual harassment can occur between any individuals associated with the college, e.g. an employee and a supervisor; coworkers; faculty mem-

bers; a faculty, staff member, or student and a customer, vendor, or contractor; students; or a student and a faculty member. Sexual harassment may occur between persons of the same sex or persons of the opposite sex.

2. Examples of Sexual Harassment

Examples of sexual harassment include, but are not limited to:

A. Direct or implied threats that submission to sexual advances will be a condition of employment, work status, promotion, grades, or letters of recommendation;

B. Direct propositions of a sexual nature and/or subtle pressure for sexual activity that is unwanted and unreasonably interferes with a person's work or academic environment;

C. Some incidents of physical assault;

D. A pattern of conduct that unreasonably interferes with the work or academic environment (not legitimately related to the subject matter of the course) including:

1. Sexual comments or inappropriate references to gender;

2. Sexually explicit statements, questions, jokes, or anecdotes regardless of the means of communication (oral, written, electronic, etc.)

3. Unwanted touching, patting, hugging, brushing against a person's body, or staring;

4. Inquiries or commentaries about sexual activity, experience, or orientation;

5. The display of inappropriate sexually oriented materials in a location where others can view them.

3. Reporting Procedure

The Jefferson Community College Board of Trustees encourages and expects any employee or student who feels that he/she has been subjected to sexual harassment to promptly report the incident.

An employee should report any event involving sexual harassment to the vice president for administrative services or the college president.

A student should report a complaint of alleged harassment to the executive vice president for academic and student affairs or the college president.

Upon receipt of a sexual harassment complaint from an employee or student, the complaint should be promptly reported to the office of the vice president for administrative services. The vice president for administrative services possesses the responsibility and authority to receive and investigate all sexual harassment complaints involving college employees and students.

In the event the alleged harasser is the designated authority to receive and investigate complaints, the complainant should directly contact the college president or any college vice president.

College administrators, faculty, staff, student employees, and volunteers who witness and/or experience sexually harassing conduct are required to report such conduct to the vice president for administrative services or another designated college official.

All complaints will remain confidential to the maximum extent permitted under law.

4. Investigation

Unless withdrawn by the complainant, all complaints of sexual harassment will be immediately investigated and promptly resolved. The complainant will be asked to reduce any charge to writing to assure clarity and to document the process of investigation.

Upon receipt of an allegation of co-worker, employee-to-student, student-to-student, or employee-to-member of the public sexual harassment, the vice president for administrative services or another designated college official will initiate an investigation into the complaint.

Investigations of alleged incidents of sexual harassment shall be confidential and conducted in a manner that respects both the privacy of all parties to the extent permitted by law and to the extent practical and appropriate under the circumstances.

If the investigation yields insufficient information to conclude sexual harassment has occurred, the matter will be recorded as unresolved; and the parties will be so notified. A written record of the investigation will be maintained by the administration separate and apart from any student or personnel file.

5. Discipline

Any employee who permits or engages in sexual harassment of anyone involved with the college (be it a student, employee, or member of the public) may be subject to disciplinary action up to and including termination/dismissal.

Any student who engages in the sexual harassment of anyone in the college setting may be subject to disciplinary action up to and including expulsion.

The range of discipline for employees includes, but is not limited to: demanding an apology; counseling the parties involved; requiring attendance at appropriate seminars/workshops; issuing an oral or written reprimand; transfer or reassignment; suspension; and the recommendation to the Board of Trustees that the individual against whom the claim is made be discharged.

The range of discipline for a student includes, but is not limited to: demanding an apology; issuing an oral or written warning; conducting a conference with the student; and expulsion.

6. Rights of Individual Who is the Subject of a Sexual Harassment Claim

An individual who is the subject of a sexual harassment complaint shall be offered the opportunity to be interviewed by the vice president for administrative services and to present his/her position with regard to the complaint. The individual is entitled to be accompanied during his/her interview with the vice president for administrative services by a representative of his/her choice. The individual may also submit his/her response to the complaint in writing.

7. Retaliation Prohibited

The Board of Trustees prohibits retaliatory behavior against any complainant or any participant in the complaint process. The initiation of a complaint of sexual harassment will not reflect negatively on the student or employee who initiates the complaint nor will it affect the individual's academic standing or employment status, rights, or privileges.

The Board of Trustees will not discriminate against, coerce, intimidate, threaten, or interfere with any individual because the individual made a charge, testified, assisted, or participated in any manner in an investigation, proceeding, or hearing pursuant to this policy, or because that individual exercised, enjoyed, aided, or encouraged any other individual in the exercise of enjoyment of any right granted or protected by this policy.

8. Files and Record of Investigation

Sexual harassment complaints and investigation results shall not be made a part of any employee's personnel file or a student's academic record unless disciplinary action is taken against the individual.

9. Notice Requirements

A copy of this sexual harassment policy or relevant provisions thereof shall:

- A. Be displayed in a prominent location in each college building;
- B. Be provided to students and employees upon request;
- C. Be included in employee and student handbooks;
- D. Appear in any college publication that sets forth the college's comprehensive rules, regulations, procedures, policies and/or standards of conduct.

SEX OFFENDER NOTIFICATION

The Higher Education Act of 1965 requires institutions of higher education to advise its campus community where it can obtain information about registered sex offenders if such an offender is registered at the college. The local sheriff's office is required to notify the college if a sexual offender residing in Jefferson County is attending JCC. Should the college receive such a notification, students will be advised to seek information regarding local sex offenders from the Ohio Attorney General at www.esorn.ag.state.oh.us.

STUDENT RIGHT-TO-KNOW

The cohort represents the number of students who enrolled at Jefferson Community College in the fall of 1998 for the first time and indicated their goal was to receive a degree or certificate from the College. The following charts indicate the number of students who completed their designated program within 150% of the normal time. Additional information may be obtained from the National Center for Education Statistics' web site at nces.ed.gov/IPEDS/COOL/.

Cohort Determination Full-Time Students				Cohort Determination All Students			
Initial Cohort	Female	Male	Total	Initial Cohort	Female	Male	Total
Allowable Exclusions	108	114	222	Allowable Exclusions	207	162	369
FINAL COHORT	0	0	0	FINAL COHORT	0	0	0
	108	114	222		207	162	369
Completers				Completers			
Students who earned a degree from JCC	27	25	52	Students who earned a degree from JCC	48	28	76
TOTAL COMPLETERS	27	25	52	TOTAL COMPLETERS	48	28	76
Non-Completers				Non-Completers			
Non-Completers at JCC	9	12	21	Non-Completers at JCC	19	19	38
Non-Completers who completed 30 hours towards a degree or certificate	16	12	28	Non-Completers who completed 30 hours towards a degree or certificate	22	13	35
Non-Completers not enrolled at any institution	32	33	65	Non-Completers not enrolled at any institution	74	60	134
Transfer-Outs (Non-Completers)				Transfer-Outs (Non-Completers)			
Transfer-out students who earned a degree from a public 2-year college	0	0	0	Transfer-out students who earned a degree from a public 2-year college	0	0	0
Transfer-out students who were enrolled at a two year college but have not graduated	9	15	24	Transfer-out students who were enrolled at a two year college but have not graduated	13	18	31
Transfer-out students who earned a degree from a public 4-year college	0	0	0	Transfer-out students who earned a degree from a public 4-year college	0	0	0
Transfer out students who were enrolled at a four year college but have not graduated	15	17	32	Transfer out students who were enrolled at a four year college but have not graduated	31	24	55
TOTAL TRANSFER OUT	24	32	56	TOTAL TRANSFER OUT	44	42	86
Completion Rate (Total completers divided by cohort)	25%	22%	23%	Completion Rate (Total completers divided by cohort)	23%	17%	21%
Transfer Out Rate (Total transfer-out divided by cohort)	22%	28%	25%	Transfer Out Rate (Total transfer-out divided by cohort)	21%	26%	23%
Adjusted Completion Rate (Total Completers + Total Transfer-Outs divided by cohort)	47%	50%	49%	Adjusted Completion Rate	44%	43%	44%

DIRECTORY

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*Denotes year of original appointment, all trustees have served continuously

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 M.S., Pittsburg State University
 Ed.S., Pittsburg State University
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 A.A.B., Jefferson Community College
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Sheila Riffle Administrative Assistant to the Vice
 President for Administrative Services
Ann M. Koon Director, Public Information
 B.S., West Virginia University and Web Coordinator
 Certified Web Author, University of Pittsburgh

ACADEMIC AFFAIRS

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 R.T.(R), (ARRT) Ohio Valley Biological Sciences
 Hospital School of Radiologic Technology
 B.A., LaRoche College
 M.S.Ed., University of Dayton
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 A.A.B., Jefferson Community College of Health and
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 Health and Biological Sciences
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 B.S., Youngstown State University Information
 M.B.A., Youngstown State University Technologies, and
 Ph.D., Walden University Information and
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 Information and Engineering Technologies
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 M.A., University of Akron
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 A.A.B., Jefferson Community College
Cindy Leasure Secretary*
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Deborah Watkins Reading/English Specialist*
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 M.L.S., University of Pittsburgh
 C.A.S., University of Pittsburgh
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 M.A., Pennsylvania State University
 Ph.D., Indiana University of Pennsylvania
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 B.A., West Liberty State College
Melissa J. Flinn Secretary to the Director of Tech Prep
 A.A.B., Jefferson Community College

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 B.A., West Liberty State College
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 Early Childhood Certificate, Jefferson Community College
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 A.A.S., Jefferson Community College
Freddie Allen Maintenance Worker*
Joan Corona Maintenance Worker *
Tom Harris Maintenance Worker
Micah Mayo Maintenance Worker
Billy Moore Jr. Maintenance Worker
Robert Myler Maintenance Worker
 A.A.S., Jefferson Community College
Charles Rice Maintenance Worker
 A.A.S., Jefferson Community College
Christopher A. McElroy Evening Coordinator*
 A.A.B., Jefferson Community College
Joanne Straker Receptionist/Switchboard*
Sally Wilson Receptionist/Switchboard*
John Cich Security Guard*
Frank DiGeorge Security Guard*
Walter "Joe" Dixon Security Guard*
Frank Fleder Security Guard*
Raymond Lucas Security Guard*
Donald Rea Security Guard*
Frank Saraceno Security Guard*

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B.S., Youngstown State University
M.B.A., Franciscan University of Steubenville
Certified Public Accountant
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A.A.B., Jefferson Community College
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- Mary Ellen Horkey** Central Services Clerk*
A.A.B., Jefferson Community College
- Kelly Ledford** Director, Student Billing and Payroll
A.A.B., Jefferson Community College
B.A., Wheeling Jesuit University
M.S., Mountain State University
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- Rose Timmerman** ..Accounting Assistant/ Accounts Receivable
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B.S., Wheeling Jesuit College
M.B.A., Wheeling Jesuit University
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- Monette Myers** Assistant Director, Technology Services
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A.A.B., Jefferson Community College
- David Smith** Technology Support Specialist
B.S., DeVry Institute of Technology

STUDENT AFFAIRS

- Patty Jo Sturch**Dean, Enrollment Management
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B.A., Elmira College
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M.Ed., University of Dayton
LPC, State of Ohio
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M.A., The Ohio State University
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M.A., West Virginia University

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A.A.B., Jefferson Community College
- Joann Harris** Financial Aid Clerk II*
- Brenda Mallis**Coordinator of Financial Aid
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- Donalyn Sutton** Student Information Clerk

WORKFORCE AND COMMUNITY OUTREACH

- Andrea Bell** Director, Workforce and
B.S., H.Ec. Ed., Ohio University Community Outreach
- Linda Slowikowski** Secretary to the Director,
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- Terri Dean** Assistant Director, Workforce
B.S. M.E., Pennsylvania State University and Community
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- Sheryl Benton** Secretary, Community Outreach
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- Martin Keith Thorn**Director of Ohio Valley Criminal*
Justice Training Association,
Police Academy/Citizens Police Academy Commander
- Jacqueline K. McCoy** Administrative Assistant*,
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B.S., University of Akron
- Amanda Winstel** Secretary, Grants & Workforce
A.A.B., Jefferson Community College Development
B.S., West Liberty State College

*Regular part-time position

FACULTY

BUSINESS, COMPUTER, AND OFFICE INFORMATION TECHNOLOGIES

FULL-TIME FACULTY

- Thomas Dulaney** Instructor
 B.A., West Virginia University
 M.P.A., West Virginia University
 M.L.I.S., Kent State University
 MOUS Master, Microsoft Office User Specialist
 CIW CI, Certified Internet Webmaster Certified Instructor
 M CIW D, Master Certified Internet Webmaster Designer
 A+, Network+, iNet+, e-Biz+
- Bernard L. Levite** Professor
 B.S., Bethany College
 M.S., University of Toledo
 M.S.Ed.A., University of Dayton
- Gretchen Higgins McGuire** Assistant Professor
 Otterbein College
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 B.S., The Ohio State University
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- Marilyn Tubaugh** Assistant Professor
 A.A., Hocking Technical College
 B.S., Wheeling Jesuit College

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- Paul Carnes, Jr.** M.B.A., Wheeling Jesuit University
- Joyce C. Collins** Casey C. Collins Inc. Relators
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- Philip Dolan Jr.** M.B.A., Wheeling Jesuit University
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- Stephen Fournier** M.S., Robert Morris University
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- Kenneth Knox** M.S., Mountain State University
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- Thomas Reed** M.B.A., University of Pittsburgh
- Timothy Reinard** M.B.A., Franciscan University of Steubenville
- Arthur Resch** M.B.A., Franciscan University of Steubenville
- Pamela Richardson** B.S., Bowling Green State University
- John Scavdis** M.B.A., West Virginia University
- Daniel Takah** M.B.A., Franciscan University of Steubenville
- John A. Westling** M.S., Emmanuel Baptist University
- Suzanne Woodstuff** M.B.A., Wheeling Jesuit University
- Kurt Yano** M.S., Drexel University
- Tamara Zinno** M.B.A., Franciscan University of Steubenville

HEALTH AND BIOLOGICAL SCIENCES

FULL-TIME FACULTY

- Cynthia K. Carducci** Associate Professor
 R.R.T., B.S., The Ohio State University
 M.Ed., Ohio University
- Kathy Cruny** Associate Professor
 R.R.T., B.S., Wheeling Jesuit College
 M.Ed., University of Dayton
- Sandra L. Ewusiak** Professor
 R.N., Ohio Valley Medical Center
 B.S.N., West Liberty State College
 M.S.N., Duquesne University
- Dr. Robin S. Flohr** Associate Professor
 R.N., Ohio Valley Hospital School of Nursing
 B.S.N., West Liberty State College
 M.B.A., Franciscan University of Steubenville
 Ed.D., University of Sarasota
- Michael Freeman** EMS Program Director
 Paramedic Certification, Davenport University
 A.S., Monroe Community College
- Shelly Gaumer** Associate Professor
 A.A.S., R.T.(R) (ARRT), Jefferson Community College
 A.A.S., Jefferson Community College
 B.A., Wheeling Jesuit College
 M.S.Ed., University of Dayton
- Tammy Gramham** Instructor
 CDA, Jefferson Community College
 A.S., West Liberty State College
 B.S., West Liberty State College
- Ericka E. Guz** Assistant Professor
 R.N., Western Pennsylvania Hospital School of Nursing
 B.S.N., West Virginia Wesleyan College
 M.Ed., Franciscan University of Steubenville
- Judith Hince** Assistant Professor
 R.N., B.S.N., Alderson Broaddus College
 M.S., West Virginia University
- Kathleen Keenan** Associate Professor
 R.N., B.S.N., Carlow College
 M.Ed., Ohio University
- Donna L. Robinson** Assistant Professor
 CDA
 A.A.S., Jefferson Community College
 E.F.D.A., State of Ohio
 B.A., West Liberty State College
- Diane Roney** Associate Professor
 R.N., B.S.N., University of Pittsburgh
 M.S.N., Duquesne University
 Post-Master's Certificate, Duquesne University
- Sondra J. Sutherland** Associate Professor
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 Ohio Valley Hospital School of Medical Technology
 B.S., Franciscan University of Steubenville
 M.Ed., Ohio University
- Stephanie A. Vance** Assistant Professor
 B.S., Shawnee State University
 M.S., University of Tennessee
 M.S., University of Bridgeport
- Anna Marie Welshans** Assistant Professor
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HEALTH AND BIOLOGICAL SCIENCES

AUXILIARY FACULTY

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 Jane Antonucci Certified EMS Instructor
 Dr. Carl Arlotta Ed.D., University of Sarasota
 Robert Burns Certified EMS Instructor
 Frances DiBenedetto Certified EMS Instructor
 Dr. Stephen Dowell D.D.S., Case Western Reserve University
 Jodi Eick A.A.S., Jefferson Community College
 Jason Gallagher Certified EMT, Jefferson Community College
 Jeffrey Hall Certified EMS Instructor, Belmont Technical College
 Melanie E. Hocking LL.M., University of Virginia School of Law
 Dana Hopkins B.S.N., Clarion University of Pennsylvania
 Charlotte Jones M.S.N., University of Phoenix
 Pamela Kearney A.A.S. and EFDA, Jefferson Community College
 Luann Kraus Certified EMS Instructor
 Dale Lackey Certified EMS Instructor
 William Miller Certified EMS Instructor
 Constance Moore B.S., Franciscan University of Steubenville
 Karen Nagy A.A.S., Jefferson Community College
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HUMANITIES AND SOCIAL SCIENCES

FULL-TIME FACULTY

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 B.A., Eastern Illinois University
 M.C.J., University of Alabama
 Joseph Brom Instructor
 B.S., Towson State University
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HUMANITIES AND SOCIAL SCIENCES

AUXILIARY FACULTY

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 Diane Baker M.S., California University of Pennsylvania
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 Dr. Ruthellen Bates Ph.D., Union Institute
 Rose Ann Braniff B.S., College of Steubenville
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 Kathy Cardiff M.A.Ed., University of Phoenix
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 Steven Cohen M.P.A., University of Southern California
 Marcy Crago M.S.W., University of Pittsburgh
 Constance Dasch M.Ed., National-Louis University
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 Mary Ann Donnelly B.A., Franciscan University of Steubenville
 Shirley Fisher M.A., Northwestern University
 Richard Givens B.S., West Liberty State College
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 James Guilfoyle M.A., Shippensburg University of Pennsylvania
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 Dr. Thomas Hisiro Ed.D., University of Pittsburgh
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 John E. McGuire M.L.S., University of Pittsburgh
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 Elizabeth O'Connor M.A., University of Northern Colorado
 Kathie Pasquarella M.A., West Virginia University
 Sherry Paull M.Ed., Palm Beach Atlantic University
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 Dr. Geoffrey Rovin Ph.D., University of Pittsburgh
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 Geeta Solanki M.A., State University of New York at Buffalo
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 Wayne Spurlock M.A., Marshall University
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 Charles VanDyke B.S., Youngstown State University
 Mary Jo Viola M.A., West Virginia University
 Joseph Weaver B.A., Ohio University
 Jamie Wells M.C.J., Tiffin University
 Thomas Wilson J.D., Ohio Northern University
 J. Randolph Yoho M.Ed., University of Dayton

INFORMATION AND ENGINEERING TECHNOLOGIES FULL-TIME FACULTY

Nghi Dao Instructor
 B.S., University of Pittsburgh
 M.S., University of Pittsburgh
 CISCO Certified Academy Instructor (CCAI)
 CISCO Certified Network Associate (CCNA)
 Certified Performance Analyst in Ethernet
 CORE Certification in ATM switching
 MCP Microsoft Certified Professional

Eric Exley Associate Professor
 B.S. (C.E.), Ohio Northern University
 M.S. (C.E.), University of Pittsburgh
 Professional Engineer (Ohio, Delaware, Pennsylvania, West
 Virginia, Indiana, and Michigan)
 Professional Surveyor (West Virginia)
 Class III Operator Licenses: Wastewater Works (Ohio)

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 A.A.S., West Virginia Northern Community College
 B.S., Point Park College
 MCP Microsoft Certified Professional
 MCSA Microsoft Certified Systems Administrator
 MCSE Microsoft Certified Systems Engineer

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 M.S., West Virginia University

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 B.S.(Ch.E.), The Ohio State University
 M.S.(C.E.E.), University of Pittsburgh

INFORMATION AND ENGINEERING TECHNOLOGIES AUXILIARY FACULTY

Gregory J. Antinone B.S.T., Cleveland State University
 Rachel Blankenship B.S., Wheeling Jesuit University
 Gretchen Brooks B.A., University of Findlay
 Peter Brown B.A., Yale University
 Nicholas Cekinovich B.S., University of Dayton
 Dennis Clark B.S.E.E., Virginia Polytechnical Institute
 Tiffany Devore B.S., Geneva College
 Bryan Dietrich B.S., University of Pittsburgh
 Cynthia Erbacher B.S., University of Toledo
 David Hervey B.S., Westminster College
 Richard Hlivko B.S., West Liberty State College
 Sommer Kostur B.S., Wheeling Jesuit University
 John Kuczykowski M.A., University of Dayton
 Dr. H. William Leech Ph.D., University of Maryland
 James Maloy B.A., Washington & Jefferson College
 Ronald Matta B.S., Carnegie Mellon University
 Ella J. Paulman M.A., University of Akron
 Stephen Purpura M.S., West Virginia University
 Ronald Salvino M.S., Franciscan University of Pittsburgh
 Milan Sherman M.S., University of Pittsburgh
 Carl Skidmore

Janice Stefansky M.S., California University of Pittsburgh
 Barbara Turner M.S., Carnegie Mellon University

ADVISORY COMMITTEES

ACCOUNTING

Ettor Canestraro Staff Accountant
D'Anniballe and Co., CPAs
Robert Chapman Certified Public Accountant
Robert Chapman, CPA
Dana R. Joyce Certified Public Accountant
Dana R. Joyce CPA
Janet Marie Nolan Accountant
Lancia Convalescent Center
Thomas W. Ossio, Jr. Certified Public Accountant
Ossio Associates
James M. Riley, CPA Certified Public Accountant
James Riley Inc., CPA
Michael J. Zinno, CPA Director of Finance
Jefferson County Board of MR/DD

BUSINESS AND INDUSTRY

Bob Acevedo President
ProActive Technologies
Trish Acevedo General Manager
ProActive Technologies
Dwain Hultberg Process Control Manager
Ohio Coatings Company
Quenton Northcraft Learning Administrator
AEP Cardinal Plant
Tony Petrosino Training Coordinator
Timet
Debbie Venci Safety Officer
Barium Chemicals

BUSINESS MANAGEMENT

Mark S. Bailey Support Manager, Leadership and Software
SARCOM
William A. Becker President
Becker Realty
Andrea Bell Director, Business/Industrial Training
Jefferson Community College
Scott Campbell Owner, Manager
M&M True Value Hardware
David Cook General Manager
Applebee's Grill & Bar
Edward A. DiPino Broker, Owner
Ed DiPino Realty
Dale Featheringham Owner/Auctioneer
Featheringham Realty
James Guida, GRI J.J. Guida Realty
Laurel McDowell Office Manager
Manpower Agency
Sue Pevac Project and Management
Consultation/Implementation
Tim Reinard Manager
Weirton Transit Authority
Michael E. Rodgers Retired
Patricia Jean Simeral Manager
The Hello Shop
Vicki L. White Sales Manager and Assistant Branch Manager
National City Bank
William Wood Sales Representative
M & M Hardware

CLINICAL LABORATORY TECHNICIAN

Rose Cerroni, Ph.D. Retired Professor
Dave Michetti Lab Services Director
Weirton Medical Center
Mary Mihalyo Chairperson, Science Department
Catholic Central High School
Dr. Souheil Nassar Pathologist
Ohio Valley Medical Center and East Ohio Regional Hospital
Susan Rayl CLS
Delta Scientific Inc.
Mona Rowley, M.L.T. (ASCP) Ridgefield Group
O. Dean Unzicker, M.A., MT(ASCP), SC, TMC Lab Services
Trinity Health Systems Director
Marlene Vizyak, MT (ASCP), M.Ed. Medical Technologist
Fisher/CMS Corporation

COMPUTER INFORMATION SYSTEMS

Robert Barnabei Assistant Professor
West Liberty State College Computers and Business
Joseph Boni Computer Head
Jefferson County Courthouse
Jack L. Humphreys Director, Data Processing
American Industries and Resources Corporation
Susan Magnone Software Engineer
Weirton Steel Corporation
Sandra Petrozzi Manager, Data Processing
OME-RESA
Nicholas Riley Manager, Data Processing
Iron City Distributing Company
Anthony Santilli Retired
Weirton Steel Corporation
Alfred Wudarski Assistant Professor
West Liberty State College

COMPUTER SCIENCE

George Borden Vice President and Co-Owner
The Ridgefield Group Inc.
Jamie Givens Senior Recruiter
CTG
Thomas Kiger Director of Information Systems
Trinity Medical Center East and Communications
Domenic Palumbo IT Liaison
Timet Corporation
George Parnicza Director of Information Technology
Troy Group
Rudy Rosnick Information Systems Manager
Bayer Corporation
Tom W. Zelinsky Hudson-Global Resources

DEAF INTERPRETIVE SERVICES

Sister Conchetta LoPresti	OSF Catholic Charities
Beth O'Connor	Special Education
Nancy Resh	Director Community Center for the Deaf
Donna Williams	Instructor Washington State Community College

DENTAL ASSISTING

Ronald C. Ard, D.D.S.	Private Practice Weirton, West Virginia
Thomas R. Brown, D.D.S.	Private Practice Wintersville, Ohio
Deena Clark	Dental Assistant Office of Dr. Joe Ponzani
Maureen Hamil	Certified Dental Assistant, AQP Office of Dr. David R. Blanc
Thomas Matanzo, D.D.S.	Private Practice Wintersville, Ohio
Eva Nagem	Dental Assistant Office of Dr. J.G. Kramer
Cindy Rudy	Dental Assistant Office of Dr. Thomas Brown
Toni Svec	Certified Dental Assistant, AQP Office of Dr. David G. Edwards

DESIGN ENGINEERING TECHNOLOGY

Darryl Giandomenico, AIA	Associate SMDA/Greco Architects
Gary Jackson	Draftsman Titanium Metals Corporation
Jeffrey Oinonen	Bridge Engineer Jefferson County Engineering
Evan A. Rowles	Professional Engineer Atlantic Engineering Services
Frank S. Vallera	Supervisor CAD Operation Weirton Steel Corporation Repair and Maintenance

EDUCATIONAL PARAPROFESSIONAL

Kevin Dennis	Counselor Buckeye Local High School
Mary Jo Guidi	Instructor Belmont Career and Technical Center
Michael McVey	Principal Steubenville High School
Dolores Michnowicz	Counselor Steubenville Catholic Central High School
Todd Phillipson	Supervisor Jefferson County Joint Vocational School
Dave Quattrochi	Principal Wintersville Elementary School
Linda Davis Rex	Principal Karaffa Middle School
Dr. Cathy Sistilli	Principal Madonna High School
Ellie Williams	Curriculum Director Edison Local School District

ELECTRONIC COMMERCE

Christopher Flohr	Consultant The Ridgefield Group
John Hornyak	Director, Distance Learning Wheeling Jesuit University
Bryan Murray	National Sales & Marketing Manager First Inc.

ELECTRICAL/ELECTRONICS ENGINEERING

Gregory Antinone	General Foreman ISG Weirton
Dr. Theodore R. Bosela	Director, Youngstown State University School of Technology
Faramarz Mossayebi	Assistant Professor, Electrical & Computer Youngstown State University
Stephen Purpura	Surveillance Technician Wheeling Island Racetrack and Gaming Center
William Schwartz	Maintenance Manager Wheeling-Nisshin
Bob Whanger	Network Specialist II ISG Weirton

EMERGENCY MEDICAL TECHNICIAN --PARAMEDIC

Lacy Bissonnette, RN, EMT-P	Emergency Room East Ohio Regional Hospital
Ruth Eddy, EMT	Administrator Forester Nursing Home
Frank Gaudio, M.D.	Director, Emergency Room St. Clair Hospital
Robert Herceg	Vice President Ambulance Service Inc.
Jim Jackson	Firefighter Mingo Junction Fire Department
William Miller	Fire Chief Richmond Volunteer Fire Department
Narendra Patel, M.D.	Director, Anesthesia Department Trinity Health System
Karen Philibin	EMS Chief/N.R. Paramedic Springfield Township Emergency Medical Services
James E. Wood, NREMT-P	Chief Paramedic Ambulance Service Inc.

LAW ENFORCEMENT

Bryan Felmet	Attorney
Eugene Gallo	Executive Director Eastern Ohio Correction Center
Samuel Kerr	Jefferson County Juvenile Court Judge
Ed Laman	Chief of Police Wintersville
James Lee	Chief Probation Officer Brooke County
Michael Maguschak, Jr.	Retired
Keith M. Thorn, Jr.	Wellsville Chief of Police JCC Police Academy Commander

MECHANICAL ENGINEERING TECHNOLOGY

- W. McElhaney** Project Engineer, MAB
ISG Weirton
- Jeff Michlea** Project Engineer
Timet Corporation
- Robert Morley** Retired
ISG Weirton
- David Velegol** Owner
Velegol Enterprises Inc.

MEDICAL ASSISTING

- Shirley Coulter, CMA** Medical Assistant
Trinity Family Care Center
- Penny Dickinson** Management Services
Trinity Family Care Center
- David Dukich** Specialist
Verimed Services
- Glenda Kelly** Operations Manager
Health Management Resources Inc.
- Tracy Miller** Office Manager
Riverside Medical
- Dr. Frank Petrola** Program Advisor/Physician
Riverside Medical
- Patty Sanfilippo** Office Manager
Dr. Nicholas Mastros
- Rose Ann Trimmer, RN** Practice Manager
Shadyside Medical Associates
- Shirley Turrentine, RN** Office Manager
Trinity Family Care Center

OFFICE INFORMATION TECHNOLOGY

- Ruth E. Casey** Revolving Loan Fund Administrator
Progressive Alliance
- D. Joan Lantry** Retired Administrative Assistant
Jefferson Community College
- Karen A. Martin** Secretary
Jefferson County Superintendent of Schools
- Paulette A. Martin** Secretary
William Fisher, Attorney
- Carole Patton** Jefferson Community College Alumnus
- Sheila Robinson** West Virginia Northern Community College
- Nancy Trombetta** Personnel Administrator
Bank One

PLACEMENT

- Michael J. Barber** President
National Colloid
- Michele Chevront** Human Resources Recruiter
Mountaineer Race Track and Gaming Resort
- Marie Gosney** Employment Manager
Trinity Medical Center West
- Cindy Heatherington** Human Resources Supervisor
Titanium Metals Corporation
- Laurel Huggins McDowell** Manager
Manpower Services Inc.
- John Riley** President
Kwik King Food Stores

PRACTICAL NURSING

- Diedra Rusnak, R.N.** Clinical Manager
Trinity Medical Center West
- Cathy Cich, RN, B.S.N.** Charity Hospice
- Carmel Esposito, RN, Ph.D.** Retired Registered Nurse
- Cindy Harda** Treatment Nurse
Lancia Villa Royale Nursing Home

PREKINDERGARTEN CARE & EDUCATION

- Kathy Cardiff** Administrator
Daycare Depot
- Connie Dasch** Adjunct Faculty
Jefferson Community College
- Eunice Lincoff** Youth Services Director
Jefferson County Action Council
- Marian Maderia** Head Teacher, Preschool
Jefferson Community College
- Kathy Pavlik** Even Start Director and Parent Mentor
Steubenville City Schools
- Marjorie Radarovich** Teacher/Principal
Steubenville City Schools
- Marilyn Roush** Preschool Director/Child Care Instructor
Jefferson County Joint Vocational School
- Juanita Shepherd Thorn** Director
Jefferson County Head Start
- Patricia Westfall** Preschool Teacher
Roosevelt Elementary School

RADIOLOGIC TECHNOLOGY

- Janice Diserio** Radiology Services Manager
Weirton Medical Center
- Frank Hamilton** Radiology Manager
Trinity Health Systems
- Lewis Musso** Human Resources Vice President
Trinity Health System
- Kerri Tush, R.T.(R)** Staff Radiographer
East Ohio Regional Hospital
- Linda Vaughan** Images Manager
Trinity Health System
- W. Hunter Vaughan, M.D.** Director of Radiology
Trinity Health System

RESPIRATORY THERAPY

- Ravi K. Alagar, M.D.** Pulmonologist
Alagar Medical Associates, P.C.
- Dave Artman** Manager, Respiratory Services
Mercy Hospital
- Thomas DeFallo** Marketing Representative
Tri-State Medical
- Marie Rostnick** Director, Anesthesia Services
Weirton Medical Center
- Stacy Straughn** Coordinator, Pulmonary Rehabilitation
Trinity Medical Center East
- Larry Teramana** Respiratory Supervisor
Trinity Medical Center West
- Matthew L. VanCamp** Director, Respiratory Care
Kindred Hospital
- Thomas Walthers, M.D.** Medical Director, Respiratory
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